GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd.

OM protein - protein search, using sw model

Run on: April 8, 2004, 15:30:06; Search time 43.3077 Seconds

(without alignments)

71.766 Million cell updates/sec

US-09-787-443A-22 Title:

Perfect score: 11

1 ARKSRDMTAIK 11 Sequence:

Scoring table: OLIGO

Gapop 60.0 , Gapext 60.0

1586107 segs, 282547505 residues Searched:

Word size :

Total number of hits satisfying chosen parameters:

22883

Minimum DB seq length: 11 Maximum DB seq length: 11

Post-processing: Listing first 100 summaries

Database : A_Geneseq_29Jan04:*

1: geneseqp1980s:*

2: geneseqp1990s:*

3: geneseqp2000s:*

4: geneseqp2001s:*

5: geneseqp2002s:*

6: geneseqp2003as:*

7: geneseqp2003bs:*

8: geneseqp2004s:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

	ક				
	Query				
Score	Match	Length	DB	ID	Description
			-		A QOEEO NCAM Ta1
T T	100.0	11	3	AAY8855U	Aay88550 NCAM Igl
11	100.0	11	5	ABG69350	Abg69350 Human neu
4	36.4	11	2	AAR28088	Aar28088 Cell-to-c
4	36.4	11	2	AAR37430	Aar37430 Promega p
4	36.4	11	2	AAR83762	Aar83762 NGF deriv
. 4	36.4	11	2	AAW09653	Aaw09653 Labelled
4	36.4	11	2	AAY31014	Aay31014 Non-cross
4	36.4	11	5	AAU78981	Aau78981 Histone H
4	36.4	11	5	AAU78982	Aau78982 Histone H
	11 11 4 4 4 4 4 4	Query Score Match 11 100.0 11 100.0 4 36.4 4 36.4 4 36.4 4 36.4 4 36.4 4 36.4 4 36.4 4 36.4	Query Score Match Length 11 100.0 11 11 100.0 11 4 36.4 11 4 36.4 11 4 36.4 11 4 36.4 11 4 36.4 11 4 36.4 11 4 36.4 11 4 36.4 11	Query Score Match Length DB 11 100.0 11 3 11 100.0 11 5 4 36.4 11 2 4 36.4 11 2 4 36.4 11 2 4 36.4 11 2 4 36.4 11 2 4 36.4 11 2 4 36.4 11 5	Query Score Match Length DB ID 11 100.0 11 3 AAY88550 11 100.0 11 5 ABG69350 4 36.4 11 2 AAR28088 4 36.4 11 2 AAR37430 4 36.4 11 2 AAR83762 4 36.4 11 2 AAW09653 4 36.4 11 2 AAY31014 4 36.4 11 5 AAU78981

	10	4	36.4	11	5	AAO21655		Aao21655 Histone a	
	11	4	36.4	11	5	ABG71544		Abg71544 Acetyllys	
	12	4	36.4	11	5	ABG71541	•	Abg71541 Acetyllys	
	13	3	27.3	11	1	AAP82047		Aap82047 "Peptide	
	14 .	3	27.3	11	1	AAP91264		Aap91264 Tissue pl	
	15	3	27.3	11	2	AAR06754		Aar06754 Tumour ne	
	16	3	27.3	11	2	AAR07719		Aar07719 Peptide f	
	17	3	27.3	11	2	AAR31358		Aar31358 Antimicro	
	18	3	27.3	11	2	AAR32352		Aar32352 Human Fac	
	19	3	27.3	11	2	AAR43465		Aar43465 Ro/SSA ep	
	20	3	27.3	11	2	AAR45170		Aar45170 Listeria	
	21	3	27.3	11	2	AAR70606		Aar70606 HIV(B35)A	
	22	3	27.3	11	2	AAR79902		Aar79902 Human FK-	
•	23	3	27.3	11	2	AAR64598		Aar64598 RF-1 pept	
	24	3	27.3	11	2	AAR96813		Aar96813 Human lam	
	25	3	27.3	11	2	AAR96812		Aar96812 N.gonorrh	
	26	3	27.3	$\overline{11}$	2	AAR96834		Aar96834 N.gonorrh	
								Aaw15309 78 kDa gl	
	27	3	27.3	11	2	AAW15309		-	
	28	3	27.3	11	2	AAW32498		Aaw32498 Helicosta	
•	29	3	27.3	11	2	AAW41012		Aaw41012 Anti-glut	
	30	3	27.3	11	2	AAW40399		Aaw40399 NNOS bind	
	31	3	27.3	11	2	AAW62282		Aaw62282 Synthetic	
	32	3	27.3	11	2	AAW41078		Aaw41078 ADPHK pro	
	33	3	27.3	11	2	AAW46000		Aaw46000 Peptide #	
	34	3	27.3	11	2	AAY20426		Aay20426 Human mic	
	35	⁻ 3	27.3	11	2	AAW61162		Aaw61162 IgE deriv	
	36	3	27.3	11	2	AAY03092		Aay03092 New nocic	
	37	3	27.3	11	2	AAY29752		Aay29752 Modified	
						AAY47615		_	
	38	3	27.3	11	2			Aay47615 Immunogen	
	39	3	27.3	11	2	AAW74077		Aaw74077 Fragment	
	40	3	27.3	11	2	AAW74135		Aaw74135 GI transp	
	41	3	27.3	11	2	AAW97473		Aaw97473 Antigenic	
	42	3	27.3	11	2	AAW97472		Aaw97472 Antigenic	
	43	3	27.3	11	2	AAW97476		Aaw97476 Antigenic	
								_	
•	44	3	27.3	11	2	AAW97477		Aaw97477 Antigenic	
	45	3	27.3	11	2	AAW97474		Aaw97474 Antigenic	
	46	3	27.3	11	2	AAW97475		Aaw97475 Antigenic	
	47	3	27.3	11	2	AAY02916		Aay02916 Fragment	
	48	3	27.3	11	3	AAY89315		Aay89315 Core poly	
	49	3	27.3	11	3	AAY81922		Aay81922 Asparagin	
	50	3	27.3	11	3	AAY81923		Aay81923 Asparagin	
	51	3	27.3	11	3	AAY81915		Aay81915 Asparagin	
	52	3	27.3	11	3	AAY81924		Aay81924 Asparagin	
	53	3	27.3	11	3	AAY81916		Aay81916 Asparagin	
	54	3	27.3	11	3	AAY81919		Aay81919 Asparagin	
	55	3	27.3	11	3	AAY81918		Aay81918 Asparagin	
	56	3	27.3	11	3	AAY81920		Aay81920 Asparagin	
	57	3	27.3	11	3	AAY81917		Aay81917 Asparagin	
	58	3	27.3	11	3	AAY81921		Aay81921 Asparagin	
	59	3	27.3	11	3	AAB16453		Aab16453 Linear pe	
	60	3	27.3	11	3	AAY88542		Aay88542 NCAM Ig1	
								Aay88549 NCAM Ig1	
	61	3	27.3	11	. 3	AAY88549			
	62	3	27.3	11	3	AAB10140		Aab10140 Insertion	
	63	3	27.3	11	3	AAY93544		Aay93544 Amino aci	
	64	3	27.3	11	3	AAB09423		Aab09423 Hepatitis	
	65	3	27.3	11	3	AAY81393		Aay81393 PKC-alpha	
	66	3	27.3	11	3	AAY54479		Aay54479 Peptide u	
	00	3	41.3	тт	ی	MM1 044 13		raysiais reputue u	
							•		
									•

•

67	3	27.3	11	3	AAB29416	Aab29416	Synthetic
68	3	27.3	11	3	AAB26504	Aab26504	Human IgE
69	3	27.3	11	3	AAB08569	Aab08569	Peptide i
70	3	27.3	11	3	AAB08606	Aab08606	Peptide i
71	3	27.3	11	4	AAG65304	Aag65304	Anti-IL-1
72	3	27.3	11	4	AAB55201	Aab55201	Anti-RSV
73	3′	27.3	11	4	AAE05275	Aae05275	Human imm
74	3	27.3	11	4	AAG99815	Aag99815	ERA bindi
75	3	27.3	11	4	ABB59308	Abb59308	Drosophil
76	3	27.3	11	4	AAB51034	Aab51034	IgE pepti
77	3	27.3	11	4	AAU16831	Aau16831	Peptide P
78	3	27.3	11	4	AAG62970	Aag62970	Complemen
79	3	27.3	11	4	AAG62982	Aag62982	Complemen
80	3	27.3	11	4	AAG62974	Aag62974	Complemen
81	3	27.3	11	4	AAG62998.	Aag62998	Complemen
82	3	27.3	11	4	AAG62984	Aag62984	Complemen
83	3	27.3	11	4	AAG62991	Aag62991	Complemen
84	3	27.3	11	4	AAG62972	Aag62972	Complemen
85	3	27.3	11	4	AAG62976	Aag62976	Complemen
86	3	27.3	11	4	AAG62980	Aag62980	Complemen
87	3	27.3	11	4	AAE05944	Aae05944	Basic ami
88	3	27.3	11	4	AAE05945	Aae05945	Basic ami
89	3	27.3	11	4	AAE12050	Aae12050	Humanised
90	3	27.3	11	4	AAB82287	Aab82287	Phosphory
91	3	27.3	11	4	AAB72872	Aab72872	Human p53
92	3	27.3	11	4	AAB35187	Aab35187	Human Tra
93	3	27.3	11	4	ABB00723		Viral DP1
94	3	27.3	11	4	AAB88242	Aab88242	Hsp-65 pe
95	. 3	27.3	11	4	AAB88274		Hsp-65 pe
96	3	27.3	11	4	ABP22484	_	HIV All m
97	3	27.3	11	4	ABP23325		HIV All m
98	3	27.3	11	4	ABP12972	-	HIV A02 s
99	3	27.3	11	4	ABP20894		HIV A03 m
100	3	27.3	11	4	ABP22986	Abp22986	HIV All m

ALIGNMENTS

```
RESULT 1
AAY88550
ID
     AAY88550 standard; peptide; 11 AA.
XX
AC
     AAY88550;
XX
     07-AUG-2000
                  (first entry)
DT
XX
DE
     NCAM Ig1 binding peptide #22.
XX
     NCAM; neural cell adhesion molecule; Ig1; immunoglobulin domain 1;
KW
KW
     neurite outgrowth promoter; proliferation; nerve damage; sclerosis;
KW
     impaired myelination; stroke; Parkinson's disease; memory; schizophrenia;
KW
     Alzheimer's disease; diabetes mellitus; circadian clock; nephrosis;
KW
     treatment; prosthetic nerve guide; treatment; nervous system.
XX
OS
     Synthetic.
XX
```

```
PN
     WO200018801-A2.
XX
PD
     06-APR-2000.
XX
PF
     23-SEP-1999;
                     99WO-DK000500.
XX
PR
     29-SEP-1998;
                     98DK-00001232.
PR
     29-APR-1999;
                     99DK-00000592.
XX
     (RONN/) RONN L C B.
PΑ
     (BOCK/) BOCK E.
PA
PΑ
     (HOLM/) HOLM A.
PΑ
     (OLSE/) OLSEN M.
PΑ
     (OSTE/) OSTERGAARD S.
     (JENS/) JENSEN P H.
PΑ
     (POUL/) POULSEN F M.
PΑ
PΑ
     (SORO/) SOROKA V.
PΑ
     (RALE/) RALETS I.
PA
     (BERE/) BEREZIN V.
XX
```

Ronn LCB, Bock E, Holm A, Olsen M, Ostergaard S, Jensen PH; Poulsen FM, Soroka V, Ralets I, Berezin V;

WPI; 2000-293111/25.

PΙ

PI XX DR

XX

PT PT

PT

XX

PS XX

CC

CC XX Compositions that bind neural cell adhesion molecules useful for treating disorders of the nervous system and muscles e.g. Alzheimer's and Parkinson's diseases.

Example 4; Page 25; 119pp; English.

Neural cell adhesion molecule (NCAM) is a cellular adhesion molecule. NCAM is found in three forms, two of which are transmembrane forms, while the third is attached via a lipid anchor to the cell membrane. All three NCAM forms have an extracellular structure consisting five immunoglobulin domains (Ig domains). The Ig domains are numbered 1 to 5 from the Nterminal. The present sequence represents a peptide which binds to the NCAM Igl domain. The peptide can be used in a compound which binds to NCAM-Ig1/Ig2 domains, and is capable of stimulating or promoting neurite outgrowth from NCAM presenting cells, and is also capable of promoting the proliferation of NCAM presenting cells. The compound may be used in the treatment of normal, degenerated or damaged NCAM presenting cells. The compound may in particular be used to treat diseases of the central and peripheral nervous systems such as post operative nerve damage, traumatic nerve damage, impaired myelination of nerve fibres, conditions resulting from a stroke, Parkinson's disease, Alzheimer's disease, dementias, sclerosis, nerve degeneration associated with diabetes mellitus, disorders affecting the circadian clock or neuro-muscular transmission and schizophrenia. Conditions affecting the muscles may also be treated with the compound, such as conditions associated with impaired function of neuromuscular connections (e.g. genetic or traumatic shock or traumatic atrophic muscle disorders). Conditions of the gonads, pancreas (e.g. diabetes mellitus types I and II), kidney (e.g. nephrosis), heart, liver and bowel may also be treated using the compound. The compound is used in a prosthetic nerve guide, and also to stimulate the ability to learn, and to stimulate the memory of a subject

```
Sequence 11 AA;
SO
  Query Match
                          100.0%; Score 11; DB 3; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.1e-05;
 Matches
           11; Conservative
                               0: Mismatches
                                                   0; Indels
                                                                 0;
                                                                     Gaps
                                                                              0;
            1 ARKSRDMTAIK 11
QУ
              1 ARKSRDMTAIK 11
Db
RESULT 2
ABG69350
     ABG69350 standard; peptide; 11 AA.
ID
XX
AC
     ABG69350;
XX
DT
     21-OCT-2002
                 (first entry)
XX
     Human neural cell adhesion molecule (NCAM) peptide #22.
DE
XX
KW
     Human; neural cell adhesion molecule; NCAM; heart muscle cell survival;
     acute myocardial infarction; central nervous system disorder; stroke;
KW
KW
     peripheral nervous system disorder; postoperative nerve damage;
ΚW
     traumatic nerve damage; spinal cord injury; nerve fibre; schizophrenia;
ΚW
     postischaemic damage; multiinfarct dementia; multiple sclerosis;
     nerve degeneration; diabetes mellitus; neuro-muscular degeneration;
ΚW
KW
     Alzheimer's disease; Parkinson's disease;
KW
     Huntington's disease. atrophic muscle disorder; gonad degeneration;
KW
     nephrosis.
XX
OS
     Homo sapiens.
XX
ΡN
     WO200247719-A2.
XX
PD
     20-JUN-2002.
XX
     12-DEC-2001; 2001WO-DK000822.
PF
XX
     12-DEC-2000; 2000DK-00001863.
PR
XX
PΑ
     (ENKA-) ENKAM PHARM AS.
XX
     Bock E, Berezin V, Kohler LB;
PI
XX
     WPI; 2002-583473/62.
DR
XX
     Use of a compound comprising a peptide of neural cell adhesion molecule,
PТ
PT
     in the preparation of medicament for preventing death of cells presenting
     NCAM or NCAM ligand and treating central nervous system diseases.
PT
XX
```

The invention relates to use of a compound (I) comprising a peptide which comprises at least 5 contiguous amino acid residues of a sequence of the

neural cell adhesion molecule (NCAM), its fragment, variant or its mimic,

for the preparation of a medicament for preventing death of cells

PS

XX CC

CC

CC

Disclosure; Page 16; 57pp; English.

```
CC
     of a medicament for preventing death of cells presenting the NCAM or an
CC
     NCAM ligand. The medicament is for the stimulation of the survival of
CC
     heart muscle cells, such as survival after acute myocardial infarction.
CC
     The medicament is for the treatment of diseases or conditions of the
CC
     central and peripheral nervous system, such as postoperative nerve
CC
     damage, traumatic nerve damage, e.g. resulting from spinal cord injury,
CC
     impaired myelination of nerve fibres, postischaemic damage, e.g.
CC
     resulting from a stroke, multiinfarct dementia, multiple sclerosis, nerve
CC
     degeneration associated with diabetes mellitus, neuro-muscular
CC
     degeneration, schizophrenia, Alzheimer's disease, Parkinson's disease and
CC
     Huntington's disease. The medicament is for the treatment of diseases or
     conditions of the muscles including conditions with impaired function of
CC
CC
     neuro-muscular connections, such as genetic or traumatic atrophic muscle
     disorders, and for the treatment of diseases of conditions of various
CC
     organs, such as degenerative conditions of the gonads, pancreas (e.g.
CC
CC
     diabetes mellitus type I and II) and kidney (e.g. nephrosis). ABG69329-
CC
    ABG69352 represent human NCAM peptides of the invention
XX
SÓ
     Sequence 11 AA;
  Query Match
                          100.0%; Score 11; DB 5; Length 11;
                          100.0%; Pred. No. 1.1e-05;
 Best Local Similarity
 Matches
            11; Conservative
                                0; Mismatches
                                                  0; Indels
                                                                 0; Gaps
                                                                             0;
            1 ARKSRDMTAIK 11
Qу
             1 ARKSRDMTAIK 11
Db
RESULT 3
AAR28088
     AAR28088 standard; protein; 11 AA.
XX
AC
     AAR28088;
XX
DT
     25-MAR-2003
                  (revised)
DT
     27-NOV-1992
                  (first entry)
XX
     Cell-to-cell binding inhibiting peptide subunit (13).
DΕ
XX
KW
     Adhesion; integrin; multimer.
XX
OS
     Synthetic.
XX
                     Location/Qualifiers
FH
     Key
FT
                     6. .11
     Cross-links
FT
                     /note= "sequence linked by interchain amide bond at Lys
                     position to Glu residue on Arq5-Glu-Ser-Arq-Gly-Asp-Val
FT
                     sequence (see AAR28087)"
FT
XX
PN
     WO9208476-A1.
XX
PD
     29-MAY-1992.
XX
PF
     07-NOV-1991;
                    91WO-US008328.
XX
```

presenting the NCAM or an NCAM ligand. (I) is useful in the preparation

CC

```
PR
     07-NOV-1990;
                    90US-00610363.
XX
PΑ
     (SCRI ) SCRIPPS RES INST.
XX
PI
     Ruggeri ZM,
                 Houghten RA;
XX
DR
     WPI; 1992-199940/24.
XX
PT
    Peptides inhibiting binding of adhesion mols. to cells expressing
PT
     integrins - for treating and preventing thrombus formation and diseases
PT
     associated with platelet aggregation.
XX
PS
     Disclosure; Page 37-38; 70pp; English.
XX
CC
     A peptide which inhibits binding of adhesion mols. to cells expressing
CC
     integrins comprises two subunits having the sequences given in AAR28087-
     88, held together by an interchain stable bond. The sequence RGD is in
CC
     each of the subunits. (Updated on 25-MAR-2003 to correct PN field.)
CC
XX
SQ
     Sequence 11 AA;
  Query Match
                          36.4%; Score 4; DB 2; Length 11;
                          100.0%; Pred. No. 6.2e+02;
  Best Local Similarity
  Matches
             4; Conservative
                               0; Mismatches
                                                    0;
                                                        Indels
                                                                  0; Gaps
                                                                               0;
            2 RKSR 5
Qу
              5 RKSR 8
Db
RESULT 4
AAR37430
ID
     AAR37430 standard; peptide; 11 AA.
XX
AC
     AAR37430;
XX
DT
     25-MAR-2003 (revised)
\mathsf{DT}
     08-SEP-1993
                 (first entry)
XX
DE
     Promega peptide 5.
XX
KW
     Modified peptide substrate; non-radioactive; detection; dansyl;
     sulphorhodamine 101; lissamine; rhodamine; enzymes; phosphatases;
KW
KW
     protein kinases; proteases.
XX
OS
     Synthetic.
XX
FH
                     Location/Qualifiers.
     Key
FT
     Modified-site
FT
                     /note= "detection tag= lissamine, Rhodamine"
XX.
PN
     WO9310461-A1.
XX
PD
     27-MAY-1993.
XX
                    92WO-US009595.
PF
     12-NOV-1992;
XX
```

```
PR
     12-NOV-1991;
                    91US-00791928.
XX
PA
     (PROM-) PROMEGA CORP.
XX
PI
     Shultz JW, White DH;
XX
DR
     WPI; 1993-182698/22.
XX
     Quantitating presence or activity of enzyme - by incubating with modified
PT
PT
     peptide substrate and measuring the modified peptide prod.
XX
PS
     Claim 24; Page 27; 103pp; English.
XX
CC
     Promega peptide 5 is tagged with dansyl at residue 1 and may be used in a
CC
     novel non-radioactive method of quantitating the presence or activity of
CC
     an enzyme. The method can be used for rapid, specific and highly
CC
     sensitive detection of enzymes such as protein kinases, phosphatases and
CC
     proteases, esp. in this case protein kinase C. They can be used to study
CC
     enzyme function in metabolism and in diagnosis of disease. They also
CC
     allow quantitative determ. of the enzyme's activity. See also AAR37426-
CC
     36. (Updated on 25-MAR-2003 to correct PN field.)
XX
SQ
     Sequence 11 AA;
  Query Match
                          36.4%; Score 4; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 6.2e+02;
                                                  0; Indels
  Matches
            4; Conservative
                               0; Mismatches
                                                                      Gaps
                                                                              0;
Qу
            2 RKSR 5
              IIII
            5 RKSR 8
Db
RESULT 5
AAR83762
ΙD
     AAR83762 standard; peptide; 11 AA.
XX
AC
     AAR83762;
XX
DT
     18-MAR-1996 (first entry)
XX
DE
     NGF derived structural analog C(29-35deltaD30A).
XX
KW
     Neurotrophin receptor; structural analog; nerve growth factor; beta turn;
     reverse turn; cyclic; tracer; uncharged; hydropathic; inhibition;
KW
     neurite outgrowth; central nervous system; peripheral nervous system;
KW
KW
     tumour; neuroma; hormone-receptor interaction site; immunisation;
KW
     receptor domain-function correlation.
XX
OS
     Synthetic.
XX
FH
                     Location/Qualifiers
     Key
FT
     Modified-site
FT
                     /note= "contains Fmoc protective group "
FT
     Misc-difference 1
                     /note= "any uncharged or hydropathic amino acid"
FT
FT
     Misc-difference 11
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/note= "any uncharged or hydropathic amino acid"
FT
XX
PN
     WO9521193-A1.
XX
     10-AUG-1995.
PD
XX
     07-FEB-1995;
                    95WO-CA000059.
PF
XX
     07-FEB-1994;
PR
                    94GB-00002331.
XX
PΑ
     (UYMC-) UNIV MCGILL.
XX
     Saragovi UH, Lesauteur L, Cuello AC;
PI
XX
    WPI; 1995-283731/37.
DR
XX
PT
     New cyclic peptide(s) which bind to neurotrophin receptor and mimic or
PT
     inhibit neurotrophin activity - useful e.g. for inhibiting neurite .
     outgrowth or treating nervous system disease, tumours, etc.
PT
XX
PS
    Claim 9; Page 32; 42pp; English.
XX
    The peptides AAR83760-80 are examples of peptides that bind to the
CC
CC
     neurotrophin receptor under physiological conditions in vivo or in vitro.
    The peptides are structural analogs of nerve growth factor (NGF) and
CC
     contain at least one beta turn (from region 28-36, 43-49 or 91-98) or 3
CC
CC
     consecutive reverse turns (from region 59-65). The peptides may be
CC
    cyclised by oxidn. of Cys or other cyclisation procedure and may be
CC
    linked to a tracer e.g. a metal chelate or radionuclide. The peptides may
CC
    contain uncharged or hydropathic amino acids at the N- and C-termini,
CC
    which are optionally protected by an Fmoc or acetyl protecting group. The
CC
    peptides are useful for inhibition of neurotrophin, esp. for inhibiting
    neurite outgrowth, treating central or peripheral nervous system disease,
CC
     tumours and neuromas, for mapping hormone-receptor interaction sites and
CC
CC
     receptor domain-function correlation and for immunisation. This peptide
CC
     is derived from residues 29-35 with a substitution of residue 30 Asp for
CC
    Ala, and contains a beta turn
XX
SO
     Sequence 11 AA;
 Query Match
                          36.4%; Score 4; DB 2; Length 11;
  Best Local Similarity 100.0%; Pred. No. 6.2e+02;
            4; Conservative
                                0; Mismatches
                                                   0; Indels
                                                                     Gaps
                                                                              0;
            8 TAIK 11
Qу
              1111
            3 TAIK 6
RESULT 6
AAW09653
     AAW09653 standard; peptide; 11 AA.
XX
AC
    AAW09653;
XX
DΤ
    25-MAR-2003 (revised)
DΤ
    20-MAY-1997 (first entry)
```

```
XX
     Labelled peptide substrate used in enzyme activity assay.
DΕ
XX
     Enzyme activity; assay; measurement; label; rhodamine; dansyl;
KW
     non-radioactive; electrophoretic separation; protein kinase; protease;
KW
     phosphatase.
KW
XX
     Synthetic.
os
XX
                     Location/Qualifiers
FH
FT
     Modified-site
                     /note= "labelled with rhodamine B detection tag"
FT
XX
     US5580747-A.
PN
XX
PD
     03-DEC-1996.
XX
                    94US-00185448.
PF
     21-JAN-1994;
XX
PR
     12-NOV-1991;
                    91US-00791928.
XX
     (PROM-) PROMEGA CORP.
PΑ
XX
PI
     White DH, Shultz JW;
XX
DR
     WPI; 1997-033568/03.
XX
PT
     Non:radioactive assay for measuring enzyme activity - involving
PT
     electrophoretic sepn. of labelled cleavage prod. from labelled peptide
PT
     substrate.
XX
PS
     Claim 5; Col 39-40; 35pp; English.
XX
     AAW09653 is a peptide substrate used in a non-radioactive assay for
CC
     measuring enzyme activity. The assay comprises incubating the enzyme with
CC
     the labelled peptide substrate to form a labelled peptide product;
CC
     separating the product from the substrate by agarose gel electrophoresis
CC
     and measuring the amount of product by detecting the label by
CC
     fluorescence or chemiluminescence. The assay can be performed rapidly and
CC
     with great sensitivity. This peptide is especially for determining
CC
     protein kinase C activity, e.g. to study its function in metabolism or to
CC
     screen for potential inhibitors. (Updated on 25-MAR-2003 to correct PF
CC
CC
     field.)
XX
SQ
     Sequence 11 AA;
  Query Match
                          36.4%; Score 4; DB 2; Length 11;
                          100.0%; Pred. No. 6.2e+02;
  Best Local Similarity
                                0; Mismatches
                                                   0; Indels
  Matches
             4; Conservative
            2 RKSR 5
Qу
              \Pi\Pi\Pi
            5 RKSR 8
```

RESULT 7 AAY31014

```
AAY31014 standard; peptide; 11 AA.
XX
     AAY31014;
AC
XX
DT
     21-OCT-1999
                  (first entry)
XX
DΕ
     Non-crosslinked protein particle peptide 63.
XX
KW
     Non-crosslinked protein particle; diagnostic; therapy; monodisperse;
     albumin; haemoglobin; nanometer; micrometer; clearance.
ΚW
XX
OS
     Synthetic.
XX
PN
     US5945033-A.
XX
PD
     31-AUG-1999.
XX
     12-NOV-1996;
                    96US-00747137.
PF
XX
PR
     15-JAN-1991;
                    91US-00641720.
PR
     13-OCT-1992;
                    92US-00959560.
                    93US-00069831.
PR
     01-JUN-1993;
PR
     14-MAR-1994;
                    94US-00212546.
XX
     (HEMO-) HEMOSPHERE INC.
PA
XX
PΙ
     Yen RCK;
XX
DR
    WPI; 1999-508153/42.
XX
     Non-crosslinked protein particles for therapeutic and diagnostic use.
PT
XX
     Example 22; Col 77-78; 65pp; English.
PS
XX
CC
     This invention describes a novel aqueous suspension of monodisperse
CC
     particles on non-crosslinked, non-denatured albumin (50-5000 nm) which is
     stable against dissolving upon dilution with an alcohol-free aqueous
CC
     medium. The method involves (a) forming an aqueous solution containing
CC
CC
     albumin and hemoglobin and (b) treating the aqueous solution with an
CC
     alcohol to cause the solution to become turbid. The particles are useful
     as agents for in vivo administration, either of their own administration
CC
     or as a vehicle for other therapeutic or diagnostic agents. The method
CC
CC
     permits the formation of albumin and hemoglobin particles in the
CC
     nanometer and micrometer size range, in a form closer to their natural
     form than the forms of the prior art. The particles therefore constitute
CC
     a more closely controlled agent for in vivo administration, with greater
CC
CC
     ease of clearance from the body after their period of usefulness.
CC
     AAY30952-Y31135 represent peptides used in the method of the invention
XX
SQ
     Sequence 11 AA;
  Query Match
                          36.4%; Score 4; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 6.2e+02;
                 Conservative
                                 0; Mismatches
                                                       Indels
                                                                      Gaps
                                                                              0:
```

ID

```
RESULT 8
AAU78981
     AAU78981 standard; peptide; 11 AA.
XX
AC
     AAU78981;
XX
DT
     18-JUN-2002 (first entry)
XX
DE
     Histone H3 antigenic fragment #5.
XX
KW
     Histone; antibody; antigen; methyllysine; gene activation;
     gene repression; heterochromatin; euchromatin; histone methylation;
KW
KW
     genetic imprinting; gene silencing.
XX
OS
     Synthetic.
XX
FH
     Key
                     Location/Qualifiers
FT
     Modified-site
FT
                     /note= "Lys is methylated"
XX
PN
     WO200218418-A1.
XX
PD
     07-MAR-2002.
XX
PF
     23-AUG-2001; 2001WO-US026283.
XX
PR
     25-AUG-2000; 2000US-0227767P.
PR
     03-JUL-2001; 2001US-0302747P.
XX
PA
     (UYVI-) UNIV VIRGINIA PATENT FOUND.
XX.
PI
     Allis CD, Strahl BD;
XX
DR
    WPI; 2002-315534/35.
XX
PT
     New methyllysine-specific antibodies, useful for as diagnostic or
PT
     screening tools, as well as in identifying regions of heterochromatin or
PT
     euchromatin.
XX
PS
     Claim 1; Page 9; 60pp; English.
XX
CC
    This invention relates to novel methyllysine histone antibodies which
CC
     specifically bind to histones H3 and H4. The present invention is
CC
     directed to post translational modifications of histones, in particular
CC
     the methylation of lysine residues. Methylation of histones has been
CC
     shown to be important for gene activation and repression. The antibodies
CC
     are useful in identifying regions of heterochromatin or euchromatin. The
CC
     antibodies are also useful as diagnostic or screening tools. The
CC
     antibodies may also be used to analyse chromosomes for regions of
CC
     transcriptional activity according to differential methylation and also
CC
     in studies of genetic imprinting and gene silencing. The antibodies may
CC
     also be useful for studying diseases linked to imprinting such as Prader-
CC
     Willi syndrome or Angelman syndrome. The present sequence represents the
CC
     histone antigenic fragment #5 specific for the N terminal of histone H3
```

```
XX
SQ
     Sequence 11 AA;
  Query Match
                          36.4%; Score 4; DB 5; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 6.2e+02;
  Matches
             4; Conservative
                                 0; Mismatches
                                                                              0;
                                                    0; Indels
                                                                  0; Gaps
            1 ARKS 4
Qу
              Db
            3 ARKS 6
RESULT 9
AAU78982
ID
     AAU78982 standard; peptide; 11 AA.
XX
AC
     AAU78982;
XX
DT
     18-JUN-2002 (first entry)
XX
DE
    Histone H3 antigenic fragment #6.
XX
KW
     Histone; antibody; antigen; methyllysine; gene activation;
KW
     gene repression; heterochromatin; euchromatin; histone methylation;
KW
     genetic imprinting; gene silencing.
XX
OS
     Synthetic.
XX
FH
     Key
                     Location/Qualifiers
FT
    Modified-site
FT
                     /note= "Lys is methylated"
XX
PN
    WO200218418-A1.
XX
PD
     07-MAR-2002.
XX
PF
     23-AUG-2001; 2001WO-US026283.
XX
     25-AUG-2000; 2000US-0227767P.
PR
     03-JUL-2001; 2001US-0302747P.
PR
XX
     (UYVI-) UNIV VIRGINIA PATENT FOUND.
PΑ
XX
PI
    Allis CD, Strahl BD;
XX
DR
    WPI; 2002-315534/35.
XX
PT
     New methyllysine-specific antibodies, useful for as diagnostic or
PT
     screening tools, as well as in identifying regions of heterochromatin or
PT
     euchromatin.
XX
PS
     Claim 1; Page 9; 60pp; English.
XX
CC
     This invention relates to novel methyllysine histone antibodies which
CC
     specifically bind to histones H3 and H4. The present invention is
CC
     directed to post translational modifications of histones, in particular
```

used to generate anti histone antibodies of the invention

CC

```
shown to be important for gene activation and repression. The antibodies
CC
CC
     are useful in identifying regions of heterochromatin or euchromatin. The
     antibodies are also useful as diagnostic or screening tools. The
CC
     antibodies may also be used to analyse chromosomes for regions of
CC
     transcriptional activity according to differential methylation and also
CC
     in studies of genetic imprinting and gene silencing. The antibodies may
CC
     also be useful for studying diseases linked to imprinting such as Prader-
CC
     Willi syndrome or Angelman syndrome. The present sequence represents the
СC
CC
     histone antigenic fragment #6 specific for the N terminal of histone H3
CC
     used to generate anti histone antibodies of the invention
XX
     Sequence 11 AA;
SQ
  Query Match
                          36.4%; Score 4; DB 5; Length 11;
                          100.0%; Pred. No. 6.2e+02;
  Best Local Similarity
             4; Conservative 0; Mismatches
  Matches
                                                  0;
                                                       Indels
                                                                  0; Gaps
                                                                              0;
            1 ARKS 4
Qу
              1111
            3 ARKS 6
Db
RESULT 10
AAO21655
     AAO21655 standard; peptide; 11 AA.
XX
AC
     AAO21655;
XX
     05-SEP-2002 (first entry)
DT
XX
DE
     Histone acetyltransferase inhibitor related peptide-alternative SEQ ID 7.
XX
     Cytostatic; amide derivative; coenzyme A; CoA; acetyltransferase; cancer;
KW
KW
     gene therapy; enzyme inhibitor.
XX
OS
     Unidentified.
XX
FH
     Key
                     Location/Qualifiers
FT
     Modified-site
FT
                     /note= "This residue is acetylated"
XX
     US6369030-B1.
PN
XX
     09-APR-2002.
PD
XX
PF
     29-NOV-1999;
                    99US-00451034.
XX
     29-NOV-1999;
PR
                    99US-00451034.
XX
PA
     (UYRQ ) UNIV ROCKEFELLER.
XX
PΙ
     Cole PA, Soccio RE, Lau OD,
                                    Khalil EM, Kundu TK,
                                                           Roeder RG;
XX
DR
     WPI: 2002-506396/54.
XX
PT
     New amide derivatives comprising coenzyme A are histone acetyltransferase
```

the methylation of lysine residues. Methylation of histones has been

CC

```
РΨ
     inhibitors useful in e.g. the treatment of cancers and gene therapy.
XX
PS
     Claim 2; Col 20; 20pp; English.
XX
     The invention relates to novel amide derivatives comprising coenzyme A
CC
     (CoA). The amide derivatives of the invention can be used for inhibiting
CC
     acetyltransferase in diseased cells and treating e.g. cancer, and also
CC
     for use in gene therapy. This sequence represents an alternative version
CC
     of peptide SEQ ID No7, which is part of a synthetic molecule that acts as
CC
     an enzyme inhibitor relating to the invention
CC
XX
SQ
     Sequence 11 AA;
                          36.4%; Score 4; DB 5; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 6.2e+02;
                              0; Mismatches 0; Indels
  Matches
             4; Conservative
                                                                  0; Gaps
                                                                              0;
            1 ARKS 4
Qy
              6 ARKS 9
Db
RESULT 11
ABG71544
     ABG71544 standard; peptide; 11 AA.
ID
XX
AC
     ABG71544;
XX
DT
     31-DEC-2002 (first entry)
XX
DΕ
     Acetyllysine-containing peptide H3-23-TKA used in ELISA assay.
XX
     Mouse; anti-acetyllysine monoclonal antibody; N epsilon-acetyllysine;
KW
     functional analysis; acetyllysine-containing protein; pathosis;
KW
     acetylated protein; disease diagnosis; histone acetylation; mAb;
KW
KW
     antibody-producing immortalised cell.
XX
OS
     Unidentified.
XX
FH
     Key
                     Location/Qualifiers
FT
     Modified-site
                     4
                     /note= "Modified by acetyl (Ac) group"
FT
XX
PN
     WO200274962-A1.
XX
     26-SEP-2002.
ΡD
XX
     13-MAR-2002; 2002WO-JP002330.
PF
XX
     15-MAR-2001; 2001JP-00074263.
PR
XX
PA
     (NISC-) JAPAN SCI & TECHNOLOGY CORP.
PΑ
     (NIHA ) JAPAN ENERGY CORP.
XX
PΙ
     Komatsu Y, Yoshida M;
XX
DR
     WPI; 2002-750555/81.
```

```
XX
PT
     Production of anti-acetyllysine monoclonal antibody capable of
     recognizing Napproximatelyi-acetyllysine regardless of types of adjacent
PT
PT
     amino acids, useful in e.g. disease diagnosis and searching for novel
PT
     acetyllysine-containing proteins.
XX
PS
     Example 1; Page 7; 45pp; Japanese.
XX
CC
     The present invention relates to a mouse anti-acetyllysine monoclonal
CC
     antibody (mAb) capable of recognising N epsilon-acetyllysine, and a
CC
     method for producing the monoclonal antibody. The produced antibody is
CC
     useful in searching for and functional analysis of novel acetyllysine-
CC
     containing proteins particularly in studying pathosis due to acetylated
CC
     proteins, disease diagnosis, facilitating detection of variation in
     acetylation levels of histone influenced by various stimulations during
CC
CC
     Western blotting, analysis of the variable region in the DNA sequence of
CC
     an antibody gene of an antibody-producing immortalised cell, and judging
CC
     the degree of homology specific to the sequence during the protein
     translation. The monoclonal antibody of the invention is capable of
CC
CC
     recognising N epsilon-acetyllysine regardless of the type of adjacent
CC
     amino acids and accepting adjacent amino acids over a broad range.
CC
     ABG71537-ABG71550 represent acetyllysine-containing peptides used for the
CC
     comparison of reactivities in enzyme linked immunosorbent assay (ELISA)
CC
     tests with mouse anti-acetyllysine monoclonal antibodies of the invention
XX
SO
     Sequence 11 AA;
  Query Match
                          36.4%; Score 4; DB 5; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 6.2e+02;
             4; Conservative
                                0; Mismatches
                                                   0; Indels 0; Gaps
                                                                              0;
            1 ARKS 4
Qу
              1111
Db
            6 ARKS 9
RESULT 12
ABG71541
     ABG71541 standard; peptide; 11 AA.
XX
AC
     ABG71541;
XX
DT
     31-DEC-2002 (first entry)
XX
DÈ
     Acetyllysine-containing peptide H3-9-RKS used in ELISA assay.
XX
     Mouse; anti-acetyllysine monoclonal antibody; N epsilon-acetyllysine;
KW
ΚW
     functional analysis; acetyllysine-containing protein; pathosis;
ΚŴ
     acetylated protein; disease diagnosis; histone acetylation; mAb;
KW
     antibody-producing immortalised cell.
XX
OS
     Unidentified.
XX
FH
     Kev
                     Location/Qualifiers
    {\tt Modified-site}
FT
FT
                     /note= "Modified by acetyl (Ac) group"
XX
```

```
WO200274962-A1.
PN
XX
PD
     26-SEP-2002.
XX
PF
     13-MAR-2002; 2002WO-JP002330.
XX
PR
     15-MAR-2001; 2001JP-00074263.
XX
PΑ
     (NISC-) JAPAN SCI & TECHNOLOGY CORP.
PΑ
     (NIHA ) JAPAN ENERGY CORP.
XX
PΙ
     Komatsu Y, Yoshida M;
XX
DŔ
     WPI; 2002-750555/81.
XX
PT
     Production of anti-acetyllysine monoclonal antibody capable of
PT
     recognizing Napproximatelyi-acetyllysine regardless of types of adjacent
PT
     amino acids, useful in e.g. disease diagnosis and searching for novel
PT
     acetyllysine-containing proteins.
XX
PS
     Example 1; Page 7; 45pp; Japanese.
XX
CC
     The present invention relates to a mouse anti-acetyllysine monoclonal
CC
     antibody (mAb) capable of recognising N epsilon-acetyllysine, and a
CC
     method for producing the monoclonal antibody. The produced antibody is
     useful in searching for and functional analysis of novel acetyllysine-
CC
CC
     containing proteins particularly in studying pathosis due to acetylated
CC
     proteins, disease diagnosis, facilitating detection of variation in
CC
     acetylation levels of histone influenced by various stimulations during
CC
     Western blotting, analysis of the variable region in the DNA sequence of
CC
     an antibody gene of an antibody-producing immortalised cell, and judging
CC
     the degree of homology specific to the sequence during the protein
CC
     translation. The monoclonal antibody of the invention is capable of
     recognising N epsilon-acetyllysine regardless of the type of adjacent
CC
CC
     amino acids and accepting adjacent amino acids over a broad range.
     ABG71537-ABG71550 represent acetyllysine-containing peptides used for the
CC
CC
     comparison of reactivities in enzyme linked immunosorbent assay (ELISA)
CC
     tests with mouse anti-acetyllysine monoclonal antibodies of the invention
XX
SQ
     Sequence 11 AA;
  Query Match
                          36.4%; Score 4; DB 5; Length 11;
                          100.0%; Pred. No. 6.2e+02;
  Best Local Similarity
 Matches
            4; Conservative
                               0; Mismatches
                                                   0; Indels
                                                                     Gaps
                                                                              0;
            1 ARKS 4
Qy
              Db
            2 ARKS 5
RESULT 13
AAP82047
ID
    AAP82047 standard; peptide; 11 AA.
XX
    AAP82047;
AC
XX
    19-OCT-1990 (first entry)
DT
```

```
XX
DE
     "Peptide 2" consisting of residues Argl5 to Arg25 of amyloid A protein.
XX
KW
     Amyloid A protein; secondary amyloidosis; anti-amyloid A antibody.
XX
OS
     Synthetic.
XX
PN
     JP63044895-A.
XX
PD
     25-FEB-1988.
XX
PF
     13-AUG-1986;
                    86JP-00189810.
XX
PR
     13-AUG-1986;
                   86JP-00189810.
XX
PA
     (KYOW ) KYOWA HAKKO KOGYO KK.
XX
DR
     WPI; 1988-094820/14.
XX
PT
     Anti-amyloid-A protein monoclonal antibody - used esp. for detection of
PT
     sec. amyloidosis.
XX
PS
     Claim 2; Page 649; 6pp; Japanese.
XX
CC
     An antibody capable of recognising Amyloid A and peptide 3 (His37 to
CC
     Arg47) derived from Amyloid A, but which does not react with other
CC
     specified peptides (including peptide 2) is useful for detection of
CC
     secondary amyloidosis. See also AAP82045-6 and AAP82048-9
XX
SQ
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 7.9e+03;
  Matches
             3; Conservative 0; Mismatches
                                                   0; Indels
                                                                     Gaps
                                                                 0;
                                                                              0;
            5 RDM 7
Qу
              1 RDM 3
Db
RESULT 14
AAP91264
     AAP91264 standard; peptide; 11 AA.
ΙD
XX
AC
     AAP91264;
XX
     25-MAR-2003 (revised)
DT
DT
     20-DEC-1989
                 (first entry)
XX
DE
     Tissue plasminogen activator mutant EGAV (V51R: N451Q).
XX
KW
     Tissue plasminogen activator; mutant; fibrinolysis; EGAV (V51R: N451Q).
XX
OS
     Homo sapiens.
XX
FH
                     Location/Qualifiers
FT
     Modified-site
```

```
XX
PN
     WO8907146-A.
XX
PD
     10-AUG-1989.
XX
PF
     03-FEB-1989;
                    89WO-US000465.
XX
PR
     05-FEB-1988;
                    88US-00152692.
XX
PΑ
     (INTE-) INTEG GENETICS INC.
XX
PΙ
     Markland W, Livingston DJ;
XX
DR
     WPI; 1989-249015/34.
XX
PT
     Rearranged tissue plasminogen activators - prepd. by altering the DNA
PT
     sequence to introduce Avr II, Nhe I, Spe I or Xba I cleavage sites.
XX
PS
     Disclosure; Page 36; 77pp; English.
XX
CC
     The peptide is encoded by AAN90545. The peptide has tPA activity, with
CC
     extended in vivo half life. Spacing between tPA domains is increased, to
CC
     increase rate of fibrinolysis or the resistance to inhibition by
     endogenous tPA inhibitors present in human plasma. The peptide is used
CC
CC
     for thrombolysis in the treatment of myocardial infarction, pulmonary
CC
     embolism, deep vein thrombosis and stroke. See also AAP91265-84. (Updated
CC
     on 25-MAR-2003 to correct PA field.)
XX
SQ
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 1; Length 11;
                          100.0%; Pred. No. 7.9e+03;
  Best Local Similarity
  Matches
            3; Conservative
                                0; Mismatches 0; Indels
                                                                  0; Gaps
                                                                              0;
            2 RKS 4
Qу
              +111
            7 RKS 9
Db
RESULT 15
AAR06754
ID
    AAR06754 standard; protein; 11 AA.
XX
    AAR06754;
AC
XX
DT
     25-MAR-2003
                  (revised)
     23-OCT-1990
DT
                 (first entry)
XX
DΕ
     Tumour necrosis factor derived peptide.
XX
ΚW
     Tumour necrosis factor; TNF; neoplastic disease; autoimmune disease;
KW
     infection; inflammation; transplant rejection.
XX
OS
     Synthetic.
XX
FH
                     Location/Qualifiers
FT
    Misc-difference 5. .5
```

```
FT
                     /label= K, Q, R
XX
     DE3841753-A.
PN
XX
PD
     13-JUN-1990.
XX
     12-DEC-1988;
PF
                    88DE-03841753.
XX
PR
     12-DEC-1988;
                    88DE-03841753.
XX
PΑ
     (BADI ) BASF AG.
     (BOEH/) BOEHM H J.
PA
XX
PI
     Bohm HJ, Daum L, Schmied B, Walker N, Zechel JC, Haupt A;
XX
     WPI; 1990-186573/25.
DR
XX
PT
     New tumour necrosis factor derived peptide(s) - for treating or
PТ
     preventing neoplastic and auto-immune disease, infection, inflammation
PT
     and transplant rejection.
XX
PS
     Example 67; Page 11; 15pp; German.
XX
CC
     To residue F1 is attached Ac and to residue A11 NH2. A3 and K9 form
CC
     together a covalent bond. This peptide is an example of a highly generic
CC
     sequence of the formula X-A-G-D-Y. A= K,Q or R; X= G-NH-CHM-CO, G-NH-CHM-
CC
     CO-W, G-R-NH-CHM-CO or G-R-NH-CHM-CO-W; Y= Z, NH-CHQ-COZ, V-NH-CHQ-COZ,
CC
     NH-CHQ-CO-U-Z or V-NH-CHQ-CO-U-Z; G= H or an amino protecting group; Z=
CC
     OH, NH2 or carboxy protecting group; or G and Z together are a covalent
CC
     bond or the gp. CO(CH2)aNH; a=1-12; R,U,V and W= peptide chains of 1-4
     naturally occuring alpha aminoacids; M and Q= H, isopropyl, CHMe.Et,
CC
CC
     phenyl, CH(OH).Me, 3-indolyl- or 4-imidazoly-methyl or (CH2)bT; b=1-6; T=
     OH, MeO, MeS, Me2CH, phenyl (opt. 4-OH, substd), HS, NH2, COOH, CONH2, NH
CC
CC
     C (NH) NH2; or M ans Q together are (CH2)c-S-S-(CH2)d, (CH2)eCO NH-(CH2)f
     or (CH2eNH CO(CH2) gNH CO(CH2) f; c and d=1-4; e and f=1-6; g=1-12. The
CC
CC
     peptide is a low mol. wt. deriv. of TNF. See also DE3841753-55,
CC
     DE3841759, DE3841761-64, DE3841767-68. (Updated on 25-MAR-2003 to correct
CC
     PA field.)
XX
     Sequence 11 AA;
SQ
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 7.9e+03;
  Matches
             3; Conservative 0; Mismatches
                                                 0; Indels
                                                                 0; Gaps
                                                                              0;
            2 RKS 4
Qу
              111
            8 RKS 10
Db
RESULT 16
AAR07719
     AAR07719 standard; protein; 11 AA.
ΙD
XX
AC
     AAR07719;
XX
DT
     25-MAR-2003 (revised)
```

```
DT
    22-FEB-1991 (first entry)
XX
DE
     Peptide fragment #5 from protease inhibitor Gelin.
XX
KW
     Gelin; protease inhibitor; Buffalo leeches; peridontal disease;
KW
    pulmonary emphysema; antibiotic.
XX
OS
    Hirudinaria manillensis.
XX
FH
                     Location/Qualifiers
    Key
FT
    Misc-difference 1
FT
                     /label= Asn, Ser
XX
PN
    WO9012808-A.
XX
PD
    01-NOV-1990.
XX
                   89NL-00000943.
PF
    14-APR-1989;
XX
PR
     14-APR-1989;
                   89NL-00000943.
XX
PA
     (EUBI-) EURO-BIOPHARM TECHN.
XX
PI
    Atkinson A, Electricwa A, Sawyer RT, Vonsicard N, Voerman G;
XX
    WPI: 1990-348426/46.
DR
XX
     Protease-inhibitor, gelin - is used in pharmaceutical, cosmetic and
PT
PT
    dental compsns.
XX
    Claim 3; Page 39; 57pp; English.
PS
XX
CC
    The sequence is one of 6 fragments from Gelin, a protein with strong anti
CC
     -elastase and anti-chymotrypsin activity. Gelin is used to treat
CC
     periodontal diseases in mammals and can be used as an antibiotic against
    bacteria. It may also inhibit germination of grains and seeds. The
CC
    polypeptide is isolated from leeches of the subfamily Hirudinarinae
CC
CC
     ("Buffalo leeches"). The identity of residue 6 is unknown. See also
     AAR07714-8 and AAR07720. (Updated on 25-MAR-2003 to correct PA field.)
CC
CC
     (Updated on 25-MAR-2003 to correct PI field.)
XX
SQ
     Sequence 11 AA;
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 7.9e+03;
  Best Local Similarity
                                                                              0;
 Matches
            3; Conservative 0; Mismatches
                                                  0; Indels
                                                                 0; Gaps
            6 DMT 8
Qу
              IIII
            9 DMT 11
RESULT 17
AAR31358
    AAR31358 standard; peptide; 11 AA.
ID
XX
AC
    AAR31358;
```

```
XX
DТ
     25-MAR-2003 (revised)
DT
     20-MAY-1998
                 (first entry)
XX
DE
     Antimicrobial peptide #12 derived from bovine lactoferrin.
XX
KW
     antimicrobial agent; iron-binding protein; athlete's foot; mastitis;
KW
     antibacterial agent.
XX
OS
     Synthetic.
XX
PN
     EP503939-A1.
XX
PD
     16-SEP-1992.
XX
PF
     12-MAR-1992;
                    92EP-00302125.
XX
PR
     13-MAR-1991;
                    91JP-00048196.
PR
     24-APR-1991;
                    91JP-00094492.
PR
     24-APR-1991;
                    91JP-00094493.
XX
PΑ
     (MORG ) MORINAGA MILK IND CO LTD.
XX
PΙ
     Tomita M, Kawase K, Takase M, Bellamy WR, Yamauchi K;
PI
     Wakabayashi H, Tokita Y;
XX
     WPI; 1992-310006/38.
DR
XX
PT
     New antimicrobial peptide(s) - active against e.g. Listeria
     monocytogenes, Staphylococcus aureus, Pseudomonas aeruginosa and
PT
PT
     Klebsiella pneumoniae, for treating e.g. diarrhoea, mastitis, etc.
XX
PS
     Claim 8; Page 17; 19pp; English.
XX
CC
     This synthetic peptide has a sequence derived from bovine lactoferrin.
CC
     The peptide has stronger antimicrobial activity than unhydrolysed
CC
     lactoferrin and improved heat resistance. The peptide had a minimum
CC
     inhibitory concentration (microM) of 1.5, 3, 6 and 25 against Listeria
CC
     monocytogenes, Staphylococcus aureus, Pseudomonas aeruginosa and
CC
     Klebsiella pneumoniae, respectively. This and other peptides derived from
     hydrolysed lactoferrin can be incorporated into foods, human or
CC
CC
     veterinary compositions (e.g. for treating mastitis and athlete's foot),
CC
     toiletries, cosmetics, cleaning agents, etc. See AAR31350-R31361.
CC
     (Updated on 25-MAR-2003 to correct PN field.)
XX
SQ
     Sequence 11 AA;
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 7.9e+03;
  Best Local Similarity
            3; Conservative
  Matches
                               0; Mismatches
                                                   0;
                                                       Indels
                                                                  0: Gaps
                                                                               0:
            3 KSR 5
QУ
              \parallel \parallel \parallel
            1 KSR 3
```

```
ID
     AAR32352 standard; peptide; 11 AA.
XX
AC
     AAR32352;
XX
DT
     05-JUL-1993 (first entry)
XX
DΕ
     Human Factor X peptide.
XX
KW
     Anticoagulant; intrinsic; extrinsic; prothrombin activation; thrombin;
KW
     formation; Factor Xa; pathway mediated activation; inhibition.
XX
OS
     Synthetic.
XX
PN
     US5187155-A.
XX
PD
     16-FEB-1993.
XX
PF
                    89US-00371561.
     23-JUN-1989;
XX
PR
     23-JUN-1989;
                    89US-00371561.
XX
PΑ
     (TEXA ) UNIV TEXAS SYSTEM.
XX
PΙ
     Fair DS:
XX
DR
     WPI; 1993-075751/09.
XX
PT
     Compsns. comprising peptide(s) of 10-50 aminoacid residues - inhibit
     factor X activation and/or Factor Xa function, useful for preventing
PT
PT
     blood clot formation and treating deep vein thrombosis, pulmonary
PT
     embolism, etc.
XX
PS
     Example; Page 6; 23pp; English.
XX
CC
     The sequence is that of a peptide corresponding to amino acids 404-414 of
CC
     the human factor X molecule which was tested for its effect, (as a % of
CC
     the control rate), on the rate of Factor Xa formation and on the rate of
CC
     thrombin formation. The results obtd. were for activation of Factor X by
     the extrinsic activation complex 78%, by the intrinsic activation complex
CC
     98%, and activation by RVV-X, 76%. For the rate of thrombin formation the
CC
CC
     rate was 88% as compared to the control rate
XX
SQ
     Sequence 11 AA;
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 7.9e+03;
                                0; Mismatches 0; Indels
  Matches
             3; Conservative
                                                                  0; Gaps
                                                                              0;
            1 ARK 3
Qу
              | \cdot |
Db
            1 ARK 3
RESULT 19
AAR43465
     AAR43465 standard; peptide; 11 AA.
```

AAR32352

```
XX
AC
     AAR43465;
XX
DT
     25-MAR-2003
                  (revised)
DT
     12-MAY-1994
                  (first entry)
XX
DΕ
     Ro/SSA epitope 280.
XX
KW
     Linear; epitope; 60 kD; Ro/SSA; La/SSB; autoantigen; E/F; G; 70 kD;
     nuclear ribonucleoprotein; nRNP; Sm B/B'; polypeptide; antigen; D;
KW
     systemic lupus erythematosus; SLE; autoantibody; U4/U6; U5; B; B';
KW
KW
     RNA polymerase III; U1; U2; Sjogrens syndrome; SS; human; vaccine; ss.
XX
OS
     Homo sapiens.
XX
PN
     WO9321223-A1.
XX
PD
     28-OCT-1993.
XX
PF
     13-APR-1993;
                    93WO-US003484.
XX
PR
     13-APR-1992;
                    92US-00867819.
XX
PA
     (OKLA ) UNIV OKLAHOMA STATE.
XX
PΙ
    Harley JB;
XX
DR
     WPI; 1993-351658/44.
XX
     New linear epitope(s) for human auto-antibodies - from the Ro/SSA, La/SSB
PΤ
PT
     and Sm B/B' antigens and ribo: nucleoprotein, used for diagnosing and
     treating auto-immune disorders e.g. systemic lupus erythematosus.
PT
XX
     Claim 1; Page 31; 43pp; English.
PS
XX
     The sequences given in AAR43391-562 are linear epitopes which are derived
CC
CC
     from the 60 kD Ro/SSA peptide, the La/SSB autoantigen, the 70 kD nuclear
     ribonucleoprotein (nRNP) and the Sm B/B' polypeptide. These antigens are
CC
CC
     common in systemic lupus erythematosus (SLE) and closely related
CC
     disorders. The Ro/SSA family of proteins has been shown to have several
CC
     molecular forms which are defined by the molecular weight of the antigen
CC
     identified. The major form has a molecular weight of 60 kD and two
CC
     additional forms have molecular weights of 52 and 54 kD. La/SSB is also a
CC
     member of this group of autoantibodies and binds small RNAs with a
CC
     polyuridine terminus. La/SSB is bound by a third of the anti-Ro/SSA
CC
     precipitin positive sera. La/SSB has been shown to be a 46-50 kD
CC
     monomeric phosphoprotein which associates with RNA polymerase III
CC
     transcripts. Anti-Sm antibodies precipitate snRNPs containing the U1, U2,
CC
     U4/U6 and U5 RNA. Anti-Sm antibodies may be directed against one or a
     combination of the polypeptides: B (26 kD), B' (27 kD), D (13 kD), E/F
CC
CC
     (11 kD doublet) and G (less than 10 kD). These epitopes may be used for
CC
     preventing, treating or screening autoimmune disorders, especially SLE or
CC
     Sjogrens syndrome (SS). They bind to a human autoantibody and may
CC
     therefore be used as vaccines. (Updated on 25-MAR-2003 to correct PN
```

Sequence 11 AA;

field.)

CC

XX SQ

```
27.3%; Score 3; DB 2; Length 11;
 Query Match
                         100.0%; Pred. No. 7.9e+03;
 Best Local Similarity
            3; Conservative
                              0; Mismatches
                                                   0; Indels
                                                                 0;
                                                                     Gaps
                                                                             0;
            7 MTA 9
QУ
              111
            9 MTA 11
Db
RESULT 20
AAR45170
    AAR45170 standard; protein; 11 AA.
XX
AC
    AAR45170;
XX
                  (revised)
DT
    25-MAR-2003
DT
     16-JUN-1994
                  (first entry)
XX
DΕ
    Listeria p60 peptide epitope.
XX
KW
     Listeria monocytogenes; antibodies; immunoassay; conjugate.
XX
OS
     Synthetic.
XX
PN
    DE4318450-A1.
XX
PD
     16-DEC-1993.
XX
PF
     03-JUN-1993;
                    93DE-04318450.
XX
PR
     11-JUN-1992;
                    92DE-04219111.
     25-NOV-1992;
                    92DE-04239567.
PR
XX
PΑ
     (MERE ) MERCK PATENT GMBH.
XX
     Schubert P, Neumann S, Pawelzik M, Linxweiler W, Burger C;
PI
PΙ
     Hofmann G, Bubert A, Goebel W, Koehler S;
XX
     WPI; 1993-406956/51.
DR
XX
     New primers for PCR detection of Listeria - including individual species,
PT
     also new peptide(s) for raising antibodies for immunochemical detection.
PT
XX
     Disclosure; Fig 2; 19pp; German.
PS
XX
CC
     The sequence is that of a Listeria p60 peptide epitope which which may be
     used in the prodn. of antibodies for the detection of Listeria by
CC
     immunoassay (partic. ELISA). It may be used as part of a method that
CC
     allows determination of individual Listeria species, esp. L.
CC
     monocytogenes. (Updated on 25-MAR-2003 to correct PN field.)
CC
XX
SQ
     Sequence 11 AA;
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 7.9e+03;
  Best Local Similarity
  Matches
             3; Conservative 0; Mismatches 0; Indels
                                                                 0; Gaps
                                                                             0;
```

```
9 AIK 11
Qу
              \parallel \parallel \parallel
            2 AIK 4
RESULT 21
AAR70606
     AAR70606 standard; peptide; 11 AA.
ID
XX
     AAR70606;
AC
XX
DT
     14-FEB-1996 (first entry)
XX
     HIV(B35)ARV2-7, human immunodeficiency virus epitope.
DE
XX
KW
     HLA; human lymphocyte antigen; HIV; human immunodeficiency virus;
     binding peptide; induce killer cell; prevention; treatment; AIDS;
KW
     autoimmune disease syndrome; vaccine.
KW
XX
OS
     Human immunodeficiency virus.
XX
PN
     W09511255-A1.
XX
PD
     27-APR-1995.
XX
                    94WO-JP001756.
PF
     19-OCT-1994;
XX
PR
     19-OCT-1993;
                    93JP-00261302.
XX
PA
     (AJIN ) AJINOMOTO KK.
XX
PI
     Takiquchi M, Miwa K;
XX
DR
     WPI; 1995-170188/22.
XX
     HLA-binding peptide fragments from HIV proteins - induce killer cells
PT
PT
     which target HIV-infected cells and can be incorporated into anti-HIV
PT
     vaccines.
XX
     Example 1; Page 10; 61pp; Japanese.
PS
XX
     AAR70606 is a peptide fragment derived from an HIV (Human
CC
     Immunodeficiency Virus) protein and is capable of binding to a human
CC
     lymphocyte antigen. The peptide can induce killer cells which target HIV-
CC
     infected cells. It is also useful in the prevention and treatment of HIV
CC
     and AIDS. Anti-HIV vaccines may incorporate the peptides, or may
CC
     incorporate a vector (such as vaccinia or BCG) contg. DNA encoding the
CC
CC
     peptides
XX
     Sequence 11 AA;
SQ
                                   Score 3; DB 2; Length 11;
  Query Match
                           27.3%;
                           100.0%; Pred. No. 7.9e+03;
  Best Local Similarity
             3; Conservative 0; Mismatches
                                                                                0;
                                                     0; Indels
                                                                   0; Gaps
  Matches
```

```
|||
| 7 RKS 9
```

Db

```
RESULT 22
AAR79902
     AAR79902 standard; peptide; 11 AA.
ID
XX
AC
     AAR79902;
XX
DT
     19-MAR-1996 (first entry)
XX
DE
     Human FK-506 cytosolic binding protein FKBP12 residues 38-48.
XX
KW
     Human; cytosolic binding protein; FKBP12; residues 38-48; FK-506;
     diagnosis; purification; determination; detection; immunosuppressant;
KW
KW
     binding partner; antibodies.
XX
OS
     Homo sapiens.
XX
PN
     WO9521861-A1.
XX
PD
     17-AUG-1995.
XX
PF
     10-FEB-1995;
                    95WO-US001721.
XX
PR
     15-FEB-1994;
                    94US-00197795.
XX
     (MERI ) MERCK & CO INC.
PA
XX
PΙ
     Wiederrecht GJ, Sewell TJ;
XX
     WPI; 1995-293076/38.
DR
XX
PT
     New FK-506 cytosolic binding protein - used for diagnostic, purification
PT
     or investigational procedures, partic. for detection of FK-506.
XX
PS
     Disclosure; Page 9; 68pp; English.
XX
CC
     AAR79900-R79902 are peptides from the human FK-506 immunosuppressant
     cytosolic binding protein FKBP12. The peptides were conjugated to
CC
     thyroglobulin, and used to generate anti-peptide antibodies. The
CC
CC
     antibodies were used to survey tissue and cell extracts relevent to the
     immunosuppressive effects FK-506. FKBP12 can be used as a specific
CC
CC
     binding partner for a variety of ligands for diagnostic, purifon. and
     investigatory procedures. It can also be used to determine the presence
CC
CC
     or quantity of FK-506 in a sample, e.g. a body fluid from an
CC
     immunosuppressed individual on FK-506 therapy
XX
SQ
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 7.9e+03;
                Conservative
                                 0; Mismatches
                                                                               0;
             3;
                                                    0;
                                                        Indels
                                                                  0; Gaps
```

Qy 4 SRD 6

```
RESULT 23
AAR64598
ID
     AAR64598 standard; peptide; 11 AA.
XX
AC
     AAR64598;
XX
DT
     25-MAR-2003
                 (revised)
DT
     01-SEP-1995
                 (first entry)
XX
DΕ
     RF-1 peptide 43 from respiratory syncitial virus.
XX
KW
     antiviral activity; DP-178; DP-107; diagnostic; HIV-1LAI;
KW
     human immunodeficiency virus; transmembrane protein; gp41; alpha helix;
KW
     leucine zipper; DP-185; respiratory syncitial virus; RSV.
XX
OS
     Synthetic.
XX
FH
     Kev
                     Location/Qualifiers
FT
     Modified-site
FT
                     /note= "optionally has an amino, acetyl, 9-
FT
                     fluorenylmethoxy-carbonyl, hydrophobic or macromolecular
FT
                     carrier qp. attached"
FT
     Modified-site
                     11
                     /note= "optionally has a carboxyl, amido, hydrophobic or
FT
                     macromolecular carrier gp. attached"
FT
XX
PN
     WO9428920-A1.
XX
PD
     22-DEC-1994.
XX
                    94WO-US005739.
PF
     07-JUN-1994;
XX
PR
                    93US-00073028.
     07-JUN-1993;
XX
PΑ
     (UYDU-) UNIV DUKE.
XX
PΙ
     Bolognesi DP, Matthews TJ, Wild CT, Barney SO, Lambert DM;
PI
     Petteway SR;
XX
     WPI; 1995-036105/05.
DR
XX
PT
     Computer search generated synthetic peptides - are inhibitors of HIV
PΤ
     transmission.
XX
     Claim 14; Page 138; 182pp; English.
PS
XX
CC
     AAR64591-623 are peptide derivatives of a 37 mer RF-1 peptide derived
CC
     from respiratory syncitial virus (RSV) (AAR64590) which have been
     truncated at the amino terminus. The peptides are DP-178 like peptides.
CC
CC
     DP-178 corresponds to amino acids 638 to 673 of the HIV-1 isolate LAI
     transmembrane protein gp41. It forms a putative alpha helix at the C-
CC
CC
     terminal end of the gp41 ectodomain, and complexes with DP-107
     (corresponds to amino acids 558-595) which contains a leucine zipper
CC
CC
     motif. The peptides complex via non-covalent protein-protein
```

```
interactions. The peptide derivatives were identified by a computer
CC
     assisted peptide sequence search. The antiviral activity of this peptide
CC
     is not stated in the specification. (Updated on 25-MAR-2003 to correct PN
CC
CC
     field.)
XX
     Sequence 11 AA;
SO
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity 100.0%; Pred. No. 7.9e+03;
 Matches
            3; Conservative
                              0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            2 RKS 4
Qу
             111
Db
            5 RKS 7
RESULT 24
AAR96813
    AAR96813 standard; peptide; 11 AA.
XX
AC
    AAR96813;
XX
DT
    29-NOV-1996
                 (first entry)
XX
DΕ
    Human laminin b2 fragment, homologous to N.gonorrhoeae MS11 IgaP.
XX
KW
     IgA protease precursor; IPP; bacterial polyprotein; autoimmune;
KW
     viral infection; rheumatoid arthritis; AIDS; meningococcal bacteria;
    human laminin b2; Neisseria gonorrhoeae.
KW
XX
OS
    Homo sapiens.
XX
                     Location/Qualifiers
FΗ
     Key
     Region
FT
                     1. .5
FT
                     /note= "identical to sequence in Neisseria gonorrhoeae
FT
                     IgaP"
FT
     Region
FT
                     /note= "identical to corresponding residue in Neisseria
FT
                     gonorrhoeae IgaP"
FT
     Region
                     10. .11
FT
                     /note= "identical to sequence in Neisseria gonorrhoeae
FT
                     IgaP"
XX
ΡN
    W09609395-A2.
XX
PD
    28-MAR-1996.
XX
PF
    21-SEP-1995;
                    95WO-EP003726.
XX
PR
    21-SEP-1994;
                    94DE-04433708.
XX
PA
     (PLAC ) MAX PLANCK GES FOERDERUNG WISSENSCHAFTEN.
XX
PΙ
    Meyer TF, Pohlner J, Beck SC, Jose J, Woelk U, Lorenzen DR;
PΙ
    Oetzelberger KB;
XX
DR
    WPI; 1996-188456/19.
```

```
XX
PT
     Medicaments for treating auto-immune or viral diseases - contq.
PT
     substances interfering with bacterial poly:protein function.
XX
PS.
     Claim 32; Fig 2; 117pp; German.
XX
CC
     The present sequence from human laminin b2 has homology to a cleavage
CC
     product from the IgaP domain of the precursor of IgA-protease polyprotein
CC
     (IPP) of Neisseria gonorrhoeae strain MS11. The Neisseria IPP has been
CC
     implicated in rheumatoid arthritis and other auto-immune diseases. The
CC
     polyprotein also activates proviruses, including HIV. Substances which
CC
     interfere with the function of IPP from Neisseria will be useful for
CC
     treating associated autoimmune diseases and viral infections. Peptides
CC
     comprising the homology region sequences, whether from Neisseria or from
CC
     humans, are claimed
XX
SQ
     Sequence 11 AA;
                          27.3%;
 Query Match
                                  Score 3; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 7.9e+03;
  Matches
             3; Conservative
                                0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            1 ARK 3
Qу
              111
            3 ARK 5
RESULT 25
     AAR96812 standard; peptide; 11 AA.
XX
AC
     AAR96812;
XX
DT
     16-OCT-2003 (revised)
DT
     29-NOV-1996 (first entry)
XX
DE
     N.gonorrhoeae MS11 IgaP region, homologous to human laminin b2.
XX
KW
     IgA protease precursor; IPP; bacterial polyprotein; autoimmune;
     viral infection; rheumatoid arthritis; AIDS; meningococcal bacteria;
KW
     human laminin b2.
KW
XX
OS
     Neisseria gonorrhoeae; MS11.
XX
FΗ
                     Location/Qualifiers
FT
     Region
                     1. .5
FT
                     /note= "identical to sequence in human laminin b2"
FT
     Region
FT
                     /note= "identical to corresponding residue in human
FT
                     laminin b2"
FT
                     10. .11
     Region
FT
                     /note= "identical to sequence in human laminin b2"
XX
PN
     WO9609395-A2.
XX
PD
     28-MAR-1996.
XX
```

```
PF
     21-SEP-1995;
                    95WO-EP003726.
XX
PR
     21-SEP-1994;
                    94DE-04433708.
XX
PA
     (PLAC ) MAX PLANCK GES FOERDERUNG WISSENSCHAFTEN.
XX
PΙ
     Meyer TF, Pohlner J, Beck SC, Jose J, Woelk U, Lorenzen DR;
PI
     Oetzelberger KB;
XX
     WPI; 1996-188456/19.
DR
XX
PT
     Medicaments for treating auto-immune or viral diseases - contg.
PT
     substances interfering with bacterial poly:protein function.
XX
     Claim 32; Fig 2; 117pp; German.
PS
XX
CC
     The present sequence is a cleavage product from the IgaP domain of the
     precursor of IgA-protease polyprotein (IPP) of Neisseria gonorrhoeae
CC
     strain MS11. The Neisseria IPP has marked homology to certain human
CC
CC
     proteins and has been implicated in rheumatoid arthritis and other auto-
CC
     immune diseases. The polyprotein also activates proviruses, including
     HIV. Substances which interfere with the function of IPP from Neisseria
CC
CC
     will be useful for treating associated autoimmune diseases and viral
     infections. The present peptide is homologous to human laminin b2.
CC
     (Updated on 16-OCT-2003 to standardise OS field)
CC
XX
SQ
     Sequence 11 AA;
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 7.9e+03;
                                                                 0; Gaps
             3; Conservative
                               0; Mismatches
                                                   0; Indels
                                                                             0;
  Matches
            1 ARK 3
Qу
              Db
            3 ARK 5
RESULT 26
AAR96834
ID
     AAR96834 standard; peptide; 11 AA.
XX
AC
     AAR96834;
XX
     16-OCT-2003 (revised)
DT
     29-NOV-1996 (first entry)
DT
XX
     N. gonorrhoeae Iga alphal region, homologous to human Nfh protein.
DE
XX
KW
     IgA protease precursor; IPP; bacterial polyprotein; autoimmune;
ΚW
     viral infection; rheumatoid arthritis; AIDS; meningococcal bacteria;
KW
     human neurofilament triplet h protein; Nfh.
XX
OS
     Neisseria gonorrhoeae; MS11.
XX
FH
                     Location/Qualifiers
     Key
FT
     Region
                     1. .3
FT
                     /note= "identical to sequence in human neurofilament
```

```
FT
                     triplet h protein"
FT
     Region
                     5. .7
FT
                     /note= "identical to sequence in human neurofilament
FT
                     triplet h protein"
FT
     Region
                     10. .11
FT
                     /note= "identical to sequence in human neurofilament
FT
                     triplet h protein"
XX
PN
     W09609395-A2.
XX
PD
     28-MAR-1996.
XX
PF
     21-SEP-1995;
                    95WO-EP003726.
XX
                    94DE-04433708.
PR
     21-SEP-1994;
XX
PΑ
     (PLAC ) MAX PLANCK GES FOERDERUNG WISSENSCHAFTEN.
XX
PΙ
     Meyer TF, Pohlner J, Beck SC, Jose J, Woelk U, Lorenzen DR;
PΙ
     Oetzelberger KB;
XX
DR
     WPI; 1996-188456/19.
XX
PT
     Medicaments for treating auto-immune or viral diseases - contq.
     substances interfering with bacterial poly:protein function.
PT
XX
PS
     Claim 32; Fig 2; 117pp; German.
XX
CC
     The present sequence is a cleavage product from the Iga alpha 1 domain of
CC
     the precursor of IgA-protease polyprotein (IPP) of N.gonorrhoeae strain
CC
     MS11. The Neisseria IPP has marked homology to certain human proteins and
     has been implicated in rheumatoid arthritis and other auto-immune
CC
CC
     diseases. The polyprotein also activates proviruses, including HIV.
CC
     Substances which interfere with the function of IPP from Neisseria will
CC
     be useful for treating associated autoimmune diseases and viral
CC
     infections. The present peptide is homologous to a region from human
CC
     neurofilament triplet h protein. (Updated on 16-OCT-2003 to standardise
CC
     OS field)
XX
SO
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity 100.0%; Pred. No. 7.9e+03;
  Matches
             3; Conservative 0; Mismatches
                                                 0; Indels
                                                                  0; Gaps
                                                                              0;
            1 ARK 3
Qу
              \perp 111
Db
            7 ARK 9
RESULT 27
AAW15309
ID
     AAW15309 standard; peptide; 11 AA.
XX
AC
     AAW15309;
XX
DT
     01-JUL-1997 (first entry)
```

```
XX
DE
     78 kDa glucose regulated protein.
XX
KW
     Release; expression; secretion; mammal; foetus; trophoblast; cell;
     chorionic villus; unchanged; hypoxia; marker; indicator; abnormal;
KW
     maternal; placental; interface; function; abortion; screening;
KW
     intrauterine; growth; retardation; gestation; disease; tumour; molar;
KW
     pregnancy; choriocarcinoma; ectopic; apolipoprotein a-1; proteinuria;
KW
     hypertension; preeclampsia; induction; mitigation;
KW
ΚW
     glucose regulated protein; 78 kDa; control.
XX
OS
     Homo sapiens.
XX
ΡN
     WO9633214-A2.
XX
PD
     24-OCT-1996.
XX
ΡF
     18-APR-1996;
                    96WO-US005441.
XX
PR
     18-APR-1995;
                    95US-00423409.
XX
PΑ
     (REGC ) UNIV CALIFORNIA.
XX
PΙ
     Fisher SJ, Genbacev O, Foulk R, Clauser KR, Burlingame AL;
XX
     WPI; 1996-497265/49.
DR
XX
PT
     Detection of abnormal placental function or metastases - by detecting
PT
     proteins with altered expression or trophoblasts or chorionic villi under
PT
     hypoxic conditions.
XX
PS
     Example 2; Page 40; 57pp; English.
XX
CC
     The level of release of the present peptide by a mammalian foetal
CC
     trophoblast cell or a chorionic villus is unchanged when the cell or
CC
     villus is grown under hypoxic conditions, characterised by a partial
CC
     pressure of oxygen (pO2) of 14 mm Hg. The peptide can be used as a
CC
     control marker for the presence of hypoxic conditions indicative of an
CC
     abnormal maternal-placental interface, and consequent abnormal placental
CC.
     function in, e.g. threatened abortion, intrauterine growth retardation,
CC
     gestational trophoblast diseases including molar pregnancy,
CC
     choriocarcinoma, placental site tumours, ectopic pregnancy, proteinuria,
CC
     pregnancy induced hypertension and preeclampsia. It can also be used as a
CC
     control in screens for inducers or mitigators of abnormal maternal-
CC
     placental interface
XX
SQ
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 7.9e+03;
             3; Conservative 0; Mismatches
                                                  0; Indels
                                                                     Gaps
                                                                              0;
            8 TAI 10
Qy
              \perp
            4 TAI 6
```

```
RESULT 28
AAW32498
ID
     AAW32498 standard; peptide; 11 AA.
XX
AC
     AAW32498;
XX
DT
     21-APR-1998
                 (first entry)
XX
DE
     Helicostatin 9, which inhibits gut motility in the blowfly.
XX
KW
     Blowfly; callatostatin; insect neuropeptide; Leu-callatostatin;
     qut motility; cockroach; insecticide; blowfly; cydiastatin; helicostatin.
KW
XX
OS
     Helicoverpa armigera.
XX
     WO9735981-A1.
PN
XX
PD
     02-OCT-1997.
XX
PF
     26-MAR-1997;
                    97WO-GB000843.
XX
PR
     26-MAR-1996;
                    96GB-00006272.
XX
PΑ
     (QUEE-) QUEEN MARY & WESTFIELD COLLEGE.
XX
PI
     Thorpe A, Duve H, Johnsen AH, East P;
XX
DR
     WPI; 1997-489644/45.
XX
PT
     New callatostatin-like peptide(s) and DNA - are active as inhibitors of
PT
     gut motility, used as insecticides, particularly against lepidopteran
PT
     insects.
XX
PS
     Claim 4; Page 63; 92pp; English.
XX
CC
     The present sequence represents a specifically claimed callatostatin-
     like peptide which is active as an inhibitor of gut motility. The
CC
CC
     callostatin-like peptides can be used as insecticides, particularly
CC
     against lepidopteran insects. The invention relates to novel recombinant
CC
     or isolated DNA sequences representing the Helicoverpa armigera
CC
     helicostatin gene, the DraI fragment from Calliphora vomitoria or the
CC
     Lucilia cuprina prohomone coding sequence. These sequences encode
CC
     proteins of 228, 177 and 179 amino acids respectively
XX
SQ
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 7.9e+03;
            3; Conservative
                               0; Mismatches
                                                                  0; Gaps
                                                   0; Indels
                                                                              0;
Qу
            5 RDM 7
              \Pi
Db
            2 RDM 4
```

RESULT 29 AAW41012

```
ID
     AAW41012 standard; peptide; 11 AA.
XX
AC
     AAW41012;
XX
DT
     22-APR-1998
                 (first entry)
XX
DE
     Anti-glutathione antibody fragment VH1; DP-25.
XX
KW
     Antibody; glutathione; human; detection.
XX
OS
     Homo sapiens.
XX
PN
     JP09154583-A.
XX
     17-JUN-1997.
PD
XX
PF
     05-DEC-1995;
                    95JP-00316872.
XX
PR
     05-DEC-1995;
                    95JP-00316872.
XX
PΑ
     (TANP-) TANPAKU KOGAKU KENKYUSHO KK.
XX
DR
    WPI; 1997-367063/34.
XX
PT
     Recombinant anti:glutathione antibody - useful for detection and
PT
     determination of glutathione.
XX
PS
     Claim 2; Page 10; 15pp; Japanese.
XX
CC
     This sequence represents a fragment of the antibody of the invention. The
CC
     antibody of the invention is an antibody which combines with glutathione
     and with a protein modified by glutathione. The anti-glutathione antibody
CC
CC
     is useful for detection and determination of glutathione
XX
SQ
     Sequence 11 AA;
 Query Match
                          27.3%; Score 3; DB 2; Length 11;
 Best Local Similarity
                          100.0%; Pred. No. 7.9e+03;
 Matches
            3; Conservative
                                 0; Mismatches
                                                                               0;
                                                    0; Indels
                                                                  0; Gaps
            3 KSR 5
Qу
              \perp
            7 KSR 9
RESULT 30
AAW40399
ΙD
    AAW40399 standard; protein; 11 AA.
XX
AC
    AAW40399;
XX
DT
     17-OCT-2003 (revised)
DT
     23-JUL-1998
                  (first entry)
XX
DE
    NNOS binding peptide #1.
XX
KW
    Nitric oxide synthase; endothelial; ENOS; INOS; inducible; NNOS;
```

KW neuronal; calmodulin; brain damage; shock; autoimmune disease; KW inflammatory condition; multiple sclerosis; diabetes; dementia; ΚW dysplasia; cancer; infectious disease; cytotoxic; hypertension; atherosclerosis; asthma; detection; screening. KW XX OS unidentified. XX PNWO9802555-A1. XX PD 22-JAN-1998. XX PF10-JUL-1997; 97WO-US012568. XX PR 12-JUL-1996; 96US-00679006. XX PA(SALE/) SALERNO J C. XX PΙ

Salerno JC;

XX DR

XX PT

PTPT

XX

PSXX

CC

CC CC

CC

CC

CC

CC CC

CC

CC

CC

CC

CC

CC

CC

CC

CC

CC

CC

CC

CC

CC

CC

CC

CC XX SO WPI; 1998-110601/10.

New modulators of nitric oxide synthase - used for treating e.g. toxic shock, auto-immune disease, inflammatory disease, diabetes, hypertension, infections or cancer.

Claim 14; Page 41; 78pp; English.

This sequence represents a peptide which binds adjacent to the calmodulin binding site of neuronal nitric oxide synthase (NNOS). This peptide is used in a novel method which identifies an agent which inhibits nitric oxide synthase (NOS) by blocking calmodulin (CAM) activation of the NOS. Such agents which modulate NOS activity can be used to treat a disease or condition associated with nitric oxide production. Agents which inhibit neuronal NOS (NNOS) can be used to prevent brain damage in conditions involving cerebral ischaemia or reperfusion injury, such as head trauma. Agents which decrease the activity of inducible NOS (INOS) can be used to treat a condition modulated by production of NO by INOS, such as septic shock, toxic shock, autoimmune disease such as rheumatoid arthritis, inflammatory conditions such as inflammatory bowel disease, multiple sclerosis, diabetes, or to combat dementia, immune system destruction, and/or physical deterioration in individuals infected with the AIDS virus. Agents which activate INOS can be used to treat disease relating to dysplasia, cancer, or infectious disease. Activation of INOS can produce cytotoxic levels of NO which would aid in the elimination of dysplastic or cancerous tissue, or aid in the control of infectious agents such as viruses, microbes, or other parasites. Agents which increase the activity of endothelial NOS (ENOS) can be used to treat a condition modulated by production of NO by ENOS such as hypertension, atherosclerosis or acute asthma. An agent which activates ENOS or NNOS in the corpus cavernosa can be used for treating male erectile dysfunction. The products and methods can also be used for detection and drug screening. (Updated on 17-OCT-2003 to standardise OS field)

Sequence 11 AA;

27.3%; Score 3; DB 2; Length 11; Query Match Best Local Similarity 100.0%; Pred. No. 7.9e+03;

```
Matches
             3; Conservative
                                  0; Mismatches
                                                     0; Indels
                                                                                 0;
                                                                    0;
                                                                       Gaps
             2 RKS 4
Qу
               \parallel \parallel \parallel
Db
             4 RKS 6
RESULT 31
AAW62282
     AAW62282 standard; peptide; 11 AA.
ID
XX
AC
     AAW62282;
XX.
DT
     24-SEP-1998
                  (first entry)
XX
DE
     Synthetic immunoglobulin TVG 405 light chain CDR3 peptide.
XX
KW
     HPV16; human papilloma virus; epithelial tumour; cervical cancer;
     precancerous cervical lesion; screening; detection; infection; cervix;
KW
KW
     HPV E4; immunoglobulin; antibody.
XX
OS
     Synthetic.
OS
     Human papillomavirus.
XX
PN
     W09825145-A1.
XX
PD
     11-JUN-1998.
XX
PF
     03-DEC-1997;
                     97WO-GB003321.
XX
PR
     03-DEC-1996;
                     96GB-00025142.
PR
     05-SEP-1997;
                     97GB-00018745.
XX
PΑ
     (MEDI-) MEDICAL RES COUNCIL.
XX
PΙ
     Doorbar J;
XX
DR
     WPI; 1998-333497/29.
XX
PT
     Detecting papilloma virus infection using molecule binding to E4 protein
PΤ
     - useful, e.g. in screening for pre-cancerous cervical lesions and to
PT
     determine type(s) of human papilloma virus infecting human patients.
XX
РS
     Example 2; Page 17; 52pp; English.
XX
     A new method has been developed for detecting a papilloma virus infection
CC
CC
     in an organism. The method comprises: (i) obtaining a sample of cells
CC
     from the potential infection site; (ii) contacting the cells with a
CC
     molecule binding specifically to papilloma virus E4 protein, and (iii)
CC
     monitoring the binding. The method is useful to detect papilloma virus
     infections in organisms (especially mammals) and especially \ensuremath{\mathsf{HPV}}
CC
CC
     infections (e.g. with HPV16, 18, 33, 35, 45, 51, 56, 58 or 61) in humans.
CC
     Papilloma viruses cause epithelial tumours in humans varying in severity
CC
     depending on the infection site and HPV type involved. The method is
     particularly useful to determine papilloma infection in the mammalian
CC
CC
     cervix and especially to screen for pre-cancerous cervical lesions in
CC
     humans, since over 90% of cervical carcinoma patients show cervical HPV
```

```
CC
     a patient, by using a molecule binding specifically to a subset of HPV E4
CC
     proteins. This is important, since progression to malignant disease (and
CC
     hence clinical prognosis) is dependent on HPV type. Molecules capable of
     binding E4 are also useful to target anticancer/antiviral agents capable
CC
CC
     of destroying papilloma viruses and/or papilloma virus-infected cells.
     The present sequence represents a synthetic immunoglobulin TVG 405 light
CC
CC
     chain CDR3 peptide, from an example of the present invention
XX
SQ
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 7.9e+03;
  Matches
             3; Conservative 0; Mismatches
                                                 0; Indels
                                                                  0; Gaps
                                                                              0;
Qу
            4 SRD 6
              \mathbf{I}
Db
            2 SRD 4
RESULT 32
AAW41078
ID
     AAW41078 standard; peptide; 11 AA.
XX
AC
     AAW41078;
XX
DT
     05-MAY-1998 (first entry)
XX
DE
     ADPHK protein sequence fragment, SEQ ID NO 3.
XX
KW
     ADPHK; enzyme; hexokinase; hexose 6-phosphate; adenosine 1-phosphate;
KW
     adenosine 2-phosphate; hexose.
XX
OS
     Synthetic.
XX
PN
     JP09327297-A.
XX
PD
     22-DEC-1997.
XX
PF
     12-MAR-1997;
                    97JP-00057330.
XX
PR
     15-MAR-1996;
                    96JP-00059136.
XX
     (ASAH ) ASAHI KASEI KOGYO KK.
PΑ
XX
DR
     WPI; 1998-104115/10.
     N-PSDB; AAV03982.
DR
XX
PT
     DNA sequence encoding hexokinase - is used to transform organism for
PT
     production of enzyme.
XX
PS
     Disclosure; Page 16; 17pp; Japanese.
XX
CC
     This sequence represents a fragment of the enzyme of the invention. The
CC
     enzyme of the invention is designated ADPHK, and is a hexokinase. The DNA
CC
     encoding this sequence was used to isolate the enzyme from P. furiosus or
CC
     T. litoralis. The hexokinase of the invention is capable of catalysing
```

infection. It is also useful to determine the type(s) of HPV infection in

```
CC
     adenosine 2-phosphate and hexose. The new DNA sequence is used to
CC
     transform the microorganism which is capable of producing a hexokinase.
     The recombinant microorganism is highly efficient at producing the enzyme
CC
XX
     Sequence 11 AA;
SQ
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity 100.0%; Pred. No. 7.9e+03;
  Matches
             3; Conservative 0; Mismatches
                                                   0;
                                                       Indels
                                                                  0:
                                                                      Gaps
                                                                              0;
            9 AIK 11
Qу
              +++
            8 AIK 10
Db
RESULT 33
AAW46000
     AAW46000 standard; peptide; 11 AA.
XX
AC
     AAW46000;
XX
DT
     03-JUL-1998
                 (first entry)
XX
DE
     Peptide #25 based on mouse SSTR 2 (residues 31-41).
XX
KW
     Hormone; receptor; antibody; vaccine; immunogen; somatostatin; IGF;
KW
     insulin-like growth factor binding protein; ILGFBP; SSTR; diabetes;
KW
     somatostatin receptor; insulin-like growth factor.
XX
OS
     Synthetic.
OS
     Mus sp.
XX
PN
     WO9744352-A1.
XX
PD
     27-NOV-1997.
XX
PΕ
     22-MAY-1997;
                    97WO-AU000312.
XX
PR
     22-MAY-1996;
                    96AU-00009990.
XX
PA
     (NORT-) NORTHSTAR BIOLOGICALS PTY LTD.
XX
PΙ
     Gerraty NL, Westbrook SL, Kingston DJ;
XX
DR
     WPI; 1998-018427/02.
XX
PT
     New non-naturally occurring peptide(s) - which are based on portions of
PT
     somatostatin, somatostatin receptors and insulin-like growth factor
PT
     binding protein.
XX
PS
     Disclosure; Page 9; 136pp; English.
XX
CC
     Peptides AAW45983-W456025 are based on portions of somatostatin,
CC
     somatostatin receptors (SSTR) and insulin-like growth factor binding
CC
     proteins (IGFBP). They are capable of increasing weight gain, birth
CC
     weight, growth rates, milk production, levels of circulating insulin, IGF
```

the formation of hexose 6-phosphate and adenosine 1-phosphate from

```
CC
     modulate carbohydrate metabolism and in treatment of diabetes. The oil
CC
     carrier may be used for delivery of the peptides
XX
SO
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 7.9e+03;
             3; Conservative
                                 0; Mismatches
                                                                  0; Gaps
                                                                               0;
                                                    0;
                                                        Indels
            6 DMT 8
Qу
              \perp
            7 DMT 9
RESULT 34
AAY20426
     AAY20426 standard; protein; 11 AA.
TD
XX
AC
     AAY20426;
XX
DT
     22-JUL-1999 (first entry)
XX
DE
     Human microtubule associated protein 2 mutant fragment 122.
XX
KW
     Human; beta-amyloid precursor protein; beta-APP; diagnosis; cancer;
KW
     frameshift mutation; age-related disease; neurodegenerative disorder;
KW
     Alzheimer's disease; Down's syndrome; myotonic dystrophy; neuronal;
KW
     Huntington's disease; multiple sclerosis; alcoholic liver disease;
     diabetes mellitus type II; microtubule associated protein; Tau; Big Tau;
KW
     ubiquitin B; apolipoprotein E; MAP2; neurofilament-L; neurofilament-M;
KW
ΚW
     neurofilament-F; presenilin I; presenilin II; cellular tumour antigen;
KW
     glial fibrillary acidic protein; GFAP; p53; semaphorin III; HUPF-1;
KW
     bcl-2; B-cell leukemia/lymphoma 2 proto-oncogene; HMGP-C; NSP-A;
KW
     high mobility group protein-C; neuroendocrine specific protein A.
XX
OS
     Synthetic.
OS
     Homo sapiens.
XX
PN
     WO9845322-A2.
XX
PD
     15-OCT-1998.
XX
PF
     02-APR-1998;
                    98WO-IB000705.
XX
PR
     10-APR-1997;
                    97US-0043163P.
XX
PA
     (ROYA-) ROYAL NETHERLANDS ACAD ARTS & SCI.
     (UYRO-) UNIV ROTTERDAM ERASMUS.
PΑ
PA
     (UYUT-) RIJKSUNIV UTRECHT.
XX
PΙ
     Van Leeuwen FW, Grosveld FG, Burbach JPH;
XX
     WPI; 1998-609901/51.
DR
DR
     N-PSDB; AAX75757.
XX
PT
     Diagnosing disease by detecting frameshift mutations in RNA or
```

-I and IGF-III, fibre production and muscle weight. They may be used to

```
PT
     corresponding protein mutations - used to diagnose cancer and
PT
     neurological diseases, particularly Alzheimer's disease, and also for
     treatment and prevention with specific ribozymes or wild-type RNA.
PT
XX
PS
     Disclosure; Fig 6; 258pp; English.
XX
CC
     This invention describes a novel method for the diagnosis of a disease
CC ,
     caused by, or associated with, an RNA molecule that has a frameshift
CC
     mutation. The method is used to diagnose age-related diseases, especially
     cancer and a wide range of neurodegenerative disorders (e.g. Alzheimer's
CC
     disease, Down's syndrome, myotonic dystrophy, Huntington's disease,
CC
CC
     multiple sclerosis, alcoholic liver disease, diabetes mellitus type II
CC
     and many others listed) or susceptibility to these disorders. The method
CC
     allows a definitive diagnosis of Alzheimer's disease in living patients,
     at an early stage. It is based on the observation that disease may be
CC
CC
     caused by mutations in RNA rather than DNA. The invention describes the
CC
     used of neuronal system RNA molecules, specifically proteins including
CC
     beta-amyloid precursor protein (beta-APP), the microtubule associated
CC
     proteins Tau and Big Tau, ubiquitin B, apolipoprotein E, microtubule
CC
     associated protein 2 (MAP2), neurofilament-L, neurofilament-M,
CC
     neurofilament-F, presenilin I, presenilin II, glial fibrillary acidic
CC
     protein (GFAP), the cellular tumour antigen p53, B-cell leukemia/lymphoma
CC
     2 (bcl-2) proto-oncogene, semaphorin III, HUPF-1, high mobility group
CC
     protein-C (HMGP-C) and neuroendocrine specific protein A
XX
SQ
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 7.9e+03;
             3; Conservative
                                0; Mismatches
                                                   0; Indels
                                                                      Gaps
                                                                              0;
            2 RKS 4
Qу
              |\cdot|
Db
            7 RKS 9
RESULT 35
AAW61162
     AAW61162 standard; peptide; 11 AA.
XX
AC
     AAW61162;
XX
DT
     26-OCT-1998 (first entry)
XX
DΕ
     IgE derived oligopeptide 1.
XX
     IgE Fc epsilon receptor; Cysteine; disulphide bond; loop structure;
KW
KW
     anti-allergy treatment; anaphylatic immune response; antibody;
KW
     Type I hypersensitivity; hay fever; asthma.
XX
OS
     Homo sapiens.
XX
РN
     WO9824808-A2.
XX
PD
     11-JUN-1998.
XX
PF
     05-DEC-1997;
                    97WO-US022348.
```

```
XX
PR
     06-DEC-1996;
                    96US-0031991P.
XX
     (USSH ) US DEPT HEALTH & HUMAN SERVICES.
PA
XX
PΙ
     Padlan EA, Birgit AH;
XX
     WPI; 1998-333254/29.
DR
XX
     Oligopeptide interacting with human IgE Fc epsilon receptor - useful in
PT
PT
     anti-allergy treatment as competitors of human IqE for Fc epsilon
PT
     receptor to block development of Type I hypersensitivity.
XX
PS
     Claim 1; Page 3; 45pp; English.
XX
CC
     The sequences AAW61162-W61166 are IgE derived oligopeptides which
     interact with the human IgE Fc epsilon receptor. This particular
CC
CC
     oligopeptide is the core minimal region of IgE required for interaction
CC
     with these Fc epsilon receptors and can thus bind both high and low
CC
     affinity receptors. The peptide was derived from a region of the epsilon
CC
     heavy chain of 'IqE, and can therefore mimic and block human IqE binding
     to the Fc receptors. This sequence was used as the core sequence in the
CC
CC
     other oligopeptides that were derived, they varied in length and at their
     N and C terminal end. The IgE protein forms a loop structure naturally,
CC
     thus the addition of Cysteine residues at both ends of this sequence
CC
CC
     enables disulphide bonds to form which results in a loop structure. These
     oligopeptides are small and are thus easy to synthesise and deliver, they
CC
     are stable, highly active in anti-allergy treatment and lastly are less
CC
CÇ
     likely to trigger an adverse anaphylatic immune response. The
CC
     oligopeptides can be used as competitors of human IgE for the Fc epsilon
CC
     receptor in anti-allergy treatment. Human IqE mediates Type I
CC
     hypersensitivity, an allergic response producing symptoms such as hay
     fever and asthma. Thus the oligopeptides can be used to block the
CC
     development of type I hypersensitivity
CC
XX
SQ
     Sequence 11 AA;
  Query Match
                          27.3%;
                                  Score 3; DB 2; Length 11;
  Best Local Similarity
                          100.0%;
                                   Pred. No. 7.9e+03;
  Matches
             3; Conservative
                                 0; Mismatches
                                                    0;
                                                        Indels
                                                                  0;
                                                                              0;
                                                                      Gaps
            2 RKS 4
Qу
              +11
            9 RKS 11
RESULT 36
     AAY03092 standard; peptide; 11 AA.
XX
AC
     AAY03092;
XX
DT
     08-JUN-1999
                 (first entry)
XX
DE
     New nociceptin analogue #74 from WO9903880.
XX
KW
     Nociceptin; vasomotor disorder; menopausal hot flush; opioid antagonist;
```

KW hyperalgesia; neuroendocrine secretion; stress; locomotor activity; anxiety; instinctive behaviour; learning disorder; memory disorder; ΚW KW attention disorder; sensory perception disorder. XX OS Synthetic. XX FHKey Location/Qualifiers Modified-site FT6. .10 FT/note= "the side chains of residues 6 and 10 are FTcondensed via a Gly residue to form a lactam bridge FTbetween these two positions" FTModified-site 10 FT/label= Orn /note= "ornithine residue" FTFTModified-site FT/note= "C-terminal amide" XX PNWO9903880-A1. XX PD28-JAN-1999. XX PF13-JUL-1998; 98WO-DK000326. XX PR 15-JUL-1997; 97DK-00000867. 17-JUL-1997; PR 97US-0052862P. XXPA (NOVO) NOVO-NORDISK AS. XX PIThogersen H, Madsen K, Olsen UB, Johansen NL, Scheideler M; XX WPI; 1999-132156/11. DR XX PTNew derivatives of nociceptin for treating vasomotor disorders -PTspecifically hot flushes in menopausal women. XX PSClaim 70; Page 61; 69pp; English. XX CC This sequence is a specifically claimed example of new nociceptin analogue peptides which have the generic formula (X)n-A1-A2-A3-A4-A5- A6-CC CC A7-A8-A9-A10-A11-A12-A13-A14-A15-A16-A17-(Y) m-A18, in which: A1 is CC absent, a small or lipophilic amino acid, or phenylpropionic acid, CC optionally acylated; A2 = aromatic, lipophilic or small amino acid, CCoptionally acylated if A1 is absent; A3, A6 and A7 = small, lipophilic or CC polar amino acids; A2-A3 may alternatively be 5-amino-pentanoic, N-CC methylanthranilic, 4-aminocyclohexane carboxylic or 3-aminomethyl-CCbenzoic acid; A4 = small, polar or aromatic amino acid; alternatively A3-CCA4 = N-methylanthranilic acid; A5, A9, A10 and A11 = lipophilic or polar CC amino acids; A8 = polar amino acids or D- or L-Ala; A12, A13, A14 and A15 CC = polar or lipophilic amino acids or may be absent; A16 and A17= small or polar amino acids or may be absent; A18 = hydroxy or amino; X and Y = CCpolar, lipophilic, aromatic or small amino acids; n + m = 0-82; and two CCCC or more of Al-Al7, X and Y may be cyclisation amino acids, forming one or CC more bridges (disulphide, lactam or Gly-lactam); provided that the CC · peptide has (a) at least two amino acids modifications relative to the CC nociceptin sequence or (b) an unnatural amino acid at position A1. These peptides are useful for treatment and prevention of vasomotor disorders, CC

specifically hot flushes in menopausal women. They can also be used for

```
diseases related to hyperalgesia, neuroendocrine secretion, stress,
CC
     locomotor activity, anxiety, instinctive behaviour, and decrease in
CC
     learning, memory, curiosity, attention and/or sensory perception
CC
XX
SQ
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity 100.0%; Pred. No. 7.9e+03;
  Matches
             3; Conservative 0; Mismatches
                                                 0; Indels
                                                                 0;
                                                                     Gaps
                                                                              0;
            1 ARK 3
Qу
              7 ARK 9
Db
RESULT 37
AAY29752
     AAY29752 standard; protein; 11 AA.
XX
AC
     AAY29752;
XX
DT
     08-NOV-1999
                 (first entry)
XX
DE
     Modified HBc amino acid sequence fragment K79.
XX
KW
     Human hepatitis B core protein; HBc; modified; immunodominant;
KW
     nucleocapsid protein; vaccine; T cell epitope.
XX
OS
     Hepatitis B virus.
OS
     Synthetic.
XX
PN
     WO9940934-A1.
XX
PD
     19-AUG-1999.
XX
PF
     11-FEB-1999;
                    99WO-US003055.
XX
PR
     12-FEB-1998;
                    98US-0074537P.
XX
PA
     (IMMU-) IMMUNE COMPLEX CORP.
XX
PI
     Birkett AJ;
XX
DR
     WPI; 1999-527340/44.
DR
     N-PSDB; AAZ08826.
XX
PT
     Conjugate of hepatitis B core protein, modified to increase reactivity
PT
     with hapten, used to raise antibodies against the hapten, e.g. in
PT
     vaccines.
XX
PS
     Example 6; Page 112; 128pp; English.
XX
CC
     The present invention describes a conjugate (A) comprising a
CC
     strategically modified hepatitis B core (HBc) protein (I) attached to a
CC
     hapten, where (I) includes amino acids (aa) 10-140 of the wild type HBc
CC
     183 aa sequence (given in AAY29674) and additionally has an insert (II)
```

antagonising the physiological effects of opioids and for treating

```
about 40 aa's and contains a chemically reactive aa residue linked to the
CC
     hapten. A vaccine containing (A), optionally in the form of particles, is
CC
CC
     used to induce a protective antibody response against the pathogen from
CC
     which the hapten is derived, in humans or other animals. These pathogens
CC
     may be bacteria, viruses, rickettsia or protozoa. Insertion of (II)
CC
     overcomes the low reactivity of aa side chains in native HBc protein,
CC
     increasing the reactivity with hapten and resulting in conjugates of
CC
     improved immunogenicity. Modified HBc can be derivatised in the form of
CC
     particles by well-defined chemical methods, and is unlikely to cause
CC
     immunological side-effects. The present sequence represents a modified
CC
     HBc fragment, having a lysine insertion, from the present invention
XX
SQ
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
                          100.0%; Pred. No. 7.9e+03;
  Best Local Similarity
  Matches
             3; Conservative 0; Mismatches
                                                   0; Indels
                                                                      Gaps
                                                                              0;
Qу
            4 SRD 6
              111
            8 SRD 10
RESULT 38
AAY47615
ID
     AAY47615 standard; peptide; 11 AA.
XX
AC
     AAY47615;
XX
DT
     01-DEC-1999
                  (first entry)
XX
DE
     Immunogenic peptide having a human leukocyte antigen binding motif #2226.
XX
     Human leukocyte antigen; binding; immunogenic; glycoprotein; MHC; HLA;
KW
KW
     immune response; T cell activation; major histocompatibility complex;
KW
     cytotoxic T lymphocyte; CTL; tumour rejection; viral infection; cancer;
KW
     prostate cancer; hepatitis B; hepatitis C; AIDS; renal carcinoma;
KW
     vaccine; immunisation.
XX
OS
     Synthetic.
OS
     Homo sapiens.
XX
PN
     W09945954-A1.
XX
PD
     16-SEP-1999.
XX
PF
     13-MAR-1998;
                    98WO-US005039.
XX
PR
     13-MAR-1998;
                    98WO-US005039.
XX
PA
     (EPIM-) EPIMMUNE INC.
XX
PΙ
               Kubo RT, Sidney J, Celis E, Grey HM, Southwood S;
XX
DR
     WPI; 1999-551214/46.
XX
```

in the region corresponding to aa's 50-100, where the insert is of 1 to

```
New immunogenic peptides with HLA binding motif, useful in treatment and
PT
     diagnosis of cancers and viral diseases.
PT
XΧ
PS
     Claim 1; Page 116; 150pp; English.
XX
CC
     AAY45390 to AAY48214 represent specifically claimed immunogenic peptides
CC
     having a human major histocompatibility complex (MHC) Class I (also known
     as human leukocyte antigen (HLA)) binding motif. The immunogenic peptides
CC
     can bind to a specific HLA allele (i.e. HLA-A subtypes HLA-A2.1, A1, A3.2
CC
CC
     or A24.1 or HLA-B or C) and induce a cytotoxic T cell response against
     the antigen from which the peptide is derived. Cytotoxic T lymphocytes
CC
     (CTLs) which destroy antigen-bearing cells are normally induced by an
CC
CC
     antigen in the form of a peptide fragment bound to a HLA molecule, rather
CC
     than the intact foreign antigen itself, and are particularly important in
CC
     tumour rejection and in fighting viral infections. The peptides are
CC
     therefore useful therapeutically to treat or prevent viral infections and
     cancers in mammals (especially humans) e.g. prostate cancer, hepatitis B
CC
CC
     and C, AIDS, and renal carcinoma. They can be administered as vaccines to
     elicit an immune response in individuals susceptible or otherwise at risk
CC
     of viral infection or cancer, or used to treat chronic or acute
CC
     conditions. They are also useful diagnostically, and can be used to
CC
CC
     induce a cytotoxic T cell response, by contacting a cytotoxic T cell with
CC
     the peptide e.g. to produce CTLs ex vivo for infusion back into a
CC
     patient. The polynucleotides encoding the immunogenic peptides are also
CC
     useful therapeutically and for immunisation as above
XX
SO
     Sequence 11 AA;
                          27.3%; Score 3; DB 2; Length 11;
 Query Match
 Best Local Similarity
                          100.0%; Pred. No. 7.9e+03;
                                                                 0; Gaps
 Matches
            3; Conservative
                               0; Mismatches
                                                  0; Indels
                                                                             0;
            8 TAI 10
Qу
              III
Db
            6 TAI 8
RESULT 39
AAW74077
ΙD
    AAW74077 standard; peptide; 11 AA.
XX
AC
     AAW74077;
XX
DT ·
     04-MAY-1999 (first entry)
XX
     Fragment of gastro-intestinal transport receptor binding peptide.
DE
XX
KW
     Gastro-intestinal transport receptor; binding protein; hSI; HPT1; D2H;
     hPEPT1; human; GI tract receptor; sucrose-isomaltase complex;
KW
     intestinal peptide-associated transporter; hypertension; diabetes;
KW
KW
     osteoporosis; haemophilia; anaemia; cancer; migraine; angina pectoris;
KW
     therapeutic agent delivery; therapy.
XX
OS
     Homo sapiens.
XX
PN
     WO9851325-A2.
XX
```

```
19-NOV-1998.
PD
XX
PF
     15-MAY-1998;
                    98WO-US010088.
XX
PR
     15-MAY-1997;
                    97US-0046595P.
XX
     (CYTO-) CYTOGEN CORP.
PA
     (ELAN-) ELAN-CORP PLC.
PΑ
XX
                  Omahony DJ, Lambkin IJ, Patterson CA, Singleton J;
PI
     Alvarez VL,
PI
     Belinka BA,
                  Carter JM, Cagney GM;
XX
     WPI; 1999-009568/01.
DR
XX
PT
     New proteins that bind specifically to receptors in the gastro-intestinal
PT
     tract and related nucleic acid - chimaeras and antibodies, used to
PT
     deliver therapeutic or diagnostic agents to, or through, the
PT
     gastrointestinal tract, e.g. insulin or leuprolide.
XX
PS
     Claim 18; Page 236; 294pp; English.
XX
CC
     This sequence represents a fragment of a protien of the invention. The
     invention relates to purified proteins (I) that bind specifically to at
CC
CC
     least one of the gastro-intestinal (GI) tract receptors human intestinal
CC
     peptide-associated transporter (HPT1), hPEPT1, D2H and human sucrose-
CC
     isomaltase complex (hSI). (I) provide active transport of therapeutic
CC
     agents through human and animal GI tissue (into the blood) for in vivo
CC
     delivery, particularly for treatment or prevention of hypertension,
CC
     diabetes, osteoporosis, haemophilia, anaemia, cancer, migraine, or angina
CC
     pectoris. Specifically they are used to deliver insulin or leuprolide,
CC
     but many other suitable therapeutic agents are disclosed, including genes
CC
     or inhibitory nucleic acid, imaging agents and antigens. (I) may also
     provide targeting to the GI tract. Other uses of (I) are: (i) to
CC
CC
     determine the level of specified receptors in a sample (in a binding
CC
     assay); and (ii) to screen for molecules that bind (I). Immunogenic
CC
     analogues or derivatives of (I) are used to raise antibodies and in
CC
     immunoassays. The antibodies are used to locate, detect and measure (I),
CC
     e.g. for imaging, monitoring treatment, tissue analysis etc., also for
CC
     peptide purification and immobilisation
XX
SQ
     Sequence 11 AA;
  Query Match
                          27.3%;
                                  Score 3; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 7.9e+03;
  Matches
             3; Conservative
                                 0; Mismatches
                                                                              0;
                                                   0; Indels
                                                                  0; Gaps
            2 RKS 4
Qy
              III
            3 RKS 5
Db
RESULT 40
AAW74135
     AAW74135 standard; peptide; 11 AA.
XX
AC
     AAW74135;
XX
```

```
DT
     04-MAY-1999 (first entry)
XX
DΕ
     GI transport receptor binding protein fragment.
XX
KW
     Gastro-intestinal transport receptor; binding protein; hSI; HPT1; D2H;
KW
     hPEPT1; human; GI tract receptor; sucrose-isomaltase complex;
KW
     intestinal peptide-associated transporter; hypertension; diabetes;
KW
     osteoporosis; haemophilia; anaemia; cancer; migraine; angina pectoris;
KW
     therapeutic agent delivery; therapy; fusion protein.
XX
OS
     Homo sapiens.
XX
PN
     WO9851325-A2.
XX
PD
     19-NOV-1998.
XX
PF
     15-MAY-1998; 98WO-US010088.
XX
PR
     15-MAY-1997; 97US-0046595P.
XX
PΑ
     (CYTO-) CYTOGEN CORP.
PA
     (ELAN-) ELAN CORP PLC.
XX
                  Omahony DJ, Lambkin IJ, Patterson CA, Singleton J;
PΙ
     Alvarez VL,
     Belinka BA,
PΙ
                 Carter JM, Cagney GM;
XX
     WPI; 1999-009568/01.
DR
XX
PT
     New proteins that bind specifically to receptors in the gastro-intestinal
     tract and related nucleic acid - chimaeras and antibodies, used to
PT
PT
     deliver therapeutic or diagnostic agents to, or through, the
PT
     gastrointestinal tract, e.g. insulin or leuprolide.
XX
     Disclosure; Page 195; 294pp; English.
PS
XX
CC
     This sequence represents a fragment of a gastro-intestinal transport
CC
     protein binding peptide. The invention relates to purified proteins (I)
CC
     that bind specifically to at least one of the gastro-intestinal (GI)
CC
     tract receptors human intestinal peptide-associated transporter (HPT1),
CC
     hPEPT1, D2H and human sucrose-isomaltase complex (hSI). (I) provide
CC
     active transport of therapeutic agents through human and animal GI tissue
CC
     (into the blood) for in vivo delivery, particularly for treatment or
CC
     prevention of hypertension, diabetes, osteoporosis, haemophilia, anaemia,
CC
     cancer, migraine, or angina pectoris. Specifically they are used to
CC
     deliver insulin or leuprolide, but many other suitable therapeutic agents
CC
     are disclosed, including genes or inhibitory nucleic acid, imaging agents
CC
     and antigens. (I) may also provide targeting to the GI tract. Other uses
     of (I) are: (i) to determine the level of specified receptors in a sample
CC
CC
     (in a binding assay); and (ii) to screen for molecules that bind (I).
CC
     Immunogenic analogues or derivatives of (I) are used to raise antibodies
CC
     and in immunoassays. The antibodies are used to locate, detect and
CC
     measure (I), e.g. for imaging, monitoring treatment, tissue analysis
CC
     etc., also for peptide purification and immobilisation
XX
SQ
     Sequence 11 AA;
```

```
Best Local Similarity 100.0%; Pred. No. 7.9e+03;
            3; Conservative 0; Mismatches 0;
 Matches
                                                                             0;
                                                       Indels
                                                                 0; Gaps
            2 RKS 4
Qу
              +
            2 RKS 4
Db
RESULT 41
AAW97473
ID
    AAW97473 standard; peptide; 11 AA.
XX
    AAW97473;
AC
XX
    19-MAY-1999 (first entry)
DT
XX
DΕ
    Antigenic site of HN protein loop beta-2L01.
XX
KW
     Antigenic site; haemagglutinin-neuraminidase; HN; paramyxoviridae;
KW
     virus epitope; attachment protein; vaccine; immunodominant epitope.
XX
OS
     Sendai virus.
XX
    WO9902695-A2.
PN
XX
PD
     21-JAN-1999.
XX
PF
     08-JUL-1998;
                    98WO-NL000390.
XX
    08-JUL-1997;
PR
                    97EP-00202100.
XX
PA
     (DIER-) STICHTING INST DIERHOUDERIJ EN DIERGEZON.
XX
PΙ
     Langedijk JPM, Van Oirschot JT;
XX
DR
    WPI; 1999-120896/10.
XX
PT
     Isolated proteinaceous substance - comprising at least one virus epitope
PT
     derived from an attachment protein of a paramyxovirus.
XX
PS
    Disclosure; Page 43; 63pp; English.
XX
CC
    AAW97452-571 represent antigenic sites derived from the haemagglutinin-
CC
     neuraminidase (HN) protein of the paramyxoviridae. The specification
CC
     describes 3-D models identifying a proteinaceous substance comprising at
    least one virus epitope derived from the attachment protein, which
CC
CC
     corresponds to an antigenic site present on one of the loops of HN. The
CC
     antigenic sites can be used to produce vaccines, to detect the viruses,
CC
     and to select the immunodominant epitope
XX
    Sequence 11 AA;
SQ
 Query Match
                          27.3%; Score 3; DB 2; Length 11;
 Best Local Similarity
                         100.0%; Pred. No. 7.9e+03;
 Matches
            3; Conservative
                              0; Mismatches
                                                  0; Indels
                                                                 0; Gaps
                                                                             0;
            2 RKS 4
Qу
```

```
|||
9 RKS 11
```

```
Db
```

```
RESULT 42
AAW97472
ID
     AAW97472 standard; peptide; 11 AA.
XX
AC
     AAW97472;
XX
DT
     19-MAY-1999 (first entry)
XX
DE
     Antigenic site of HN protein loop beta-2L01.
XX
KW
     Antigenic site; haemagqlutinin-neuraminidase; HN; paramyxoviridae;
KW
     virus epitope; attachment protein; vaccine; immunodominant epitope.
XX
OS
     Bovine parainfluenza virus.
XX
PN
     WO9902695-A2.
XX
PD
     21-JAN-1999.
XX
PF
     08-JUL-1998;
                    98WO-NL000390.
XX
PR
     08-JUL-1997:
                    97EP-00202100.
XX
PA
     (DIER-) STICHTING INST DIERHOUDERIJ EN DIERGEZON.
XX
     Langedijk JPM, Van Oirschot JT;
PΙ
XX
DR
     WPI; 1999-120896/10.
XX
PT
     Isolated proteinaceous substance - comprising at least one virus epitope
PT
     derived from an attachment protein of a paramyxovirus.
XX
PS
     Disclosure; Page 43; 63pp; English.
XX
CC
     AAW97452-571 represent antigenic sites derived from the haemagglutinin-
CC
     neuraminidase (HN) protein of the paramyxoviridae. The specification
     describes 3-D models identifying a proteinaceous substance comprising at
CC
CC
     least one virus epitope derived from the attachment protein, which
CC
     corresponds to an antigenic site present on one of the loops of HN. The
CC
     antigenic sites can be used to produce vaccines, to detect the viruses,
CC
     and to select the immunodominant epitope
XX
SQ
     Sequence 11 AA;
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 7.9e+03;
                                                                  0;
  Matches
             3; Conservative 0; Mismatches 0; Indels
                                                                      Gaps
                                                                              0:
            2 RKS 4
Qу
              \Box
Db
            9 RKS 11
```

```
RESULT 43
AAW97476
ID
     AAW97476 standard; peptide; 11 AA.
XX
AC
     AAW97476;
XX
DT
     19-MAY-1999 (first entry)
XX
DE
     Antigenic site of HN protein loop beta-2L01.
XX
KW
     Antigenic site; haemagglutinin-neuraminidase; HN; paramyxoviridae;
KW
     virus epitope; attachment protein; vaccine; immunodominant epitope.
XX
OS
     Mumps virus.
XX
     WO9902695-A2.
PN
XX
     21-JAN-1999.
PD
XX
PF
     08-JUL-1998;
                    98WO-NL000390.
XX
     08-JUL-1997;
                    97EP-00202100.
PR
XX
     (DIER-) STICHTING INST DIERHOUDERIJ EN DIERGEZON.
PA
XX
PΙ
     Langedijk JPM, Van Oirschot JT;
XX
DR
    WPI; 1999-120896/10.
XX
PT
     Isolated proteinaceous substance - comprising at least one virus epitope
PT
     derived from an attachment protein of a paramyxovirus.
XX
     Disclosure; Page 43; 63pp; English.
PS
XX
CC
    AAW97452-571 represent antigenic sites derived from the haemagglutinin-
CC
    neuraminidase (HN) protein of the paramyxoviridae. The specification
CC
     describes 3-D models identifying a proteinaceous substance comprising at
CC
     least one virus epitope derived from the attachment protein, which
CC
     corresponds to an antigenic site present on one of the loops of HN. The
CC
     antigenic sites can be used to produce vaccines, to detect the viruses,
CC
     and to select the immunodominant epitope
XX
SQ
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 7.9e+03;
             3; Conservative
                                0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            2 RKS 4
QУ
              III
            9 RKS 11
Db
RESULT 44
AAW97477
     AAW97477 standard; peptide; 11 AA.
ID
XX
```

```
AC
     AAW97477;
XX
     19-MAY-1999 (first entry)
DT
XX
DE
     Antigenic site of HN protein loop beta-2L01.
XX
KW
     Antigenic site; haemagglutinin-neuraminidase; HN; paramyxoviridae;
     virus epitope; attachment protein; vaccine; immunodominant epitope.
KW
XX
os
     Newcastle disease virus.
XX
PN
     W09902695-A2.
XX
     21-JAN-1999.
PD
XX
PF
     08-JUL-1998;
                    98WO-NL000390.
XX
PR
     08-JUL-1997;
                    97EP-00202100.
XX
PΑ
     (DIER-) STICHTING INST DIERHOUDERIJ EN DIERGEZON.
XX
PΙ
     Langedijk JPM, Van Oirschot JT;
XX
DR
     WPI; 1999-120896/10.
XX
PT
     Isolated proteinaceous substance - comprising at least one virus epitope
PT
     derived from an attachment protein of a paramyxovirus.
XX
PS
     Disclosure; Page 43; 63pp; English.
XX
CC
     AAW97452-571 represent antigenic sites derived from the haemagglutinin-
CC
     neuraminidase (HN) protein of the paramyxoviridae. The specification
CC
     describes 3-D models identifying a proteinaceous substance comprising at
CC
     least one virus epitope derived from the attachment protein, which
CC
     corresponds to an antigenic site present on one of the loops of HN. The
CC
     antigenic sites can be used to produce vaccines, to detect the viruses,
CC
     and to select the immunodominant epitope
XX
     Sequence 11 AA;
SQ
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
 Best Local Similarity
                          100.0%; Pred. No. 7.9e+03;
             3; Conservative
                                0; Mismatches
                                                    0; Indels
                                                                   0; Gaps
                                                                               0;
            2 RKS 4
Qу
              \parallel \parallel \parallel
            9 RKS 11
RESULT 45
AAW97474
    AAW97474 standard; peptide; 11 AA.
XX
AC
    AAW97474;
XX
DT
     19-MAY-1999 (first entry)
XX
```

```
DE
     Antigenic site of HN protein loop beta-2L01.
XX
KW
     Antigenic site; haemagglutinin-neuraminidase; HN; paramyxoviridae;
KW
     virus epitope; attachment protein; vaccine; immunodominant epitope.
XX
OS
     Human parainfluenza virus.
XX
PN
     WO9902695-A2.
XX
PD
     21-JAN-1999.
XX
PF
     08-JUL-1998;
                    98WO-NL000390.
XX
PR
     08-JUL-1997;
                    97EP-00202100.
XX
PΑ
     (DIER-) STICHTING INST DIERHOUDERIJ EN DIERGEZON.
XX
PΙ
     Langedijk JPM, Van Oirschot JT;
XX
DR
    WPI; 1999-120896/10.
XX
PT
     Isolated proteinaceous substance - comprising at least one virus epitope
PT
     derived from an attachment protein of a paramyxovirus.
XX
PS
     Disclosure; Page 43; 63pp; English.
XX
CC
    AAW97452-571 represent antigenic sites derived from the haemagglutinin-
CC
    neuraminidase (HN) protein of the paramyxoviridae. The specification
CC
    describes 3-D models identifying a proteinaceous substance comprising at
CC
     least one virus epitope derived from the attachment protein, which
CC
     corresponds to an antigenic site present on one of the loops of HN. The
     antigenic sites can be used to produce vaccines, to detect the viruses,
CC
CC
     and to select the immunodominant epitope
XX
SQ
     Sequence 11 AA;
 Query Match
                          27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 7.9e+03;
 Matches
             3; Conservative
                                 0; Mismatches
                                                                              0;
                                                    0; Indels
                                                                  0; Gaps
            2 RKS 4
Qу
              1141
            9 RKS 11
RESULT 46
AAW97475
    AAW97475 standard; peptide; 11 AA.
ID
XX
AC
    AAW97475;
XX
     27-AUG-2003
DT
                  (revised)
DT
     19-MAY-1999
                  (first entry)
XX
DE
    Antigenic site of HN protein loop beta-2L01.
XX
KW
    Antiquenic site; haemagglutinin-neuraminidase; HN; paramyxoviridae;
```

```
ΚW
     virus epitope; attachment protein; vaccine; immunodominant epitope.
XX
     Unidentified.
OS
XX
     WO9902695-A2.
PN
XX
PD
     21-JAN-1999.
XX
     08-JUL-1998;
PF
                    98WO-NL000390.
XX
PR
     08-JUL-1997;
                    97EP-00202100.
XX
     (DIER-) STICHTING INST DIERHOUDERIJ EN DIERGEZON.
PΑ
XX
     Langedijk JPM, Van Oirschot JT;
PI
XX
    WPI; 1999-120896/10.
DR
XX
PT
     Isolated proteinaceous substance - comprising at least one virus epitope
PT
     derived from an attachment protein of a paramyxovirus.
XX
РŞ
     Disclosure; Page 43; 63pp; English.
XX
CC
    AAW97452-571 represent antigenic sites derived from the haemagglutinin-
    neuraminidase (HN) protein of the paramyxoviridae. The specification
CC
CC
     describes 3-D models identifying a proteinaceous substance comprising at
CC
     least one virus epitope derived from the attachment protein, which
CC
     corresponds to an antigenic site present on one of the loops of HN. The
    antigenic sites can be used to produce vaccines, to detect the viruses,
CC
CC
    and to select the immunodominant epitope. (Updated on 27-AUG-2003 to
CC.
    correct OS field.)
XX
SO
    Sequence 11 AA;
 Query Match
                          27.3%; Score 3; DB 2; Length 11;
 Best Local Similarity
                         100.0%; Pred. No. 7.9e+03;
 Matches
            3; Conservative
                              0; Mismatches 0; Indels
                                                                 0; Gaps
                                                                             0;
Qу
            2 RKS 4
              \pm 111
Db
            9 RKS 11
RESULT 47
AAY02916
ID
    AAY02916 standard; protein; 11 AA.
XX
AC
    AAY02916;
XX
DT
    11-JUN-1999 (first entry)
XX
DE
    Fragment of human secreted protein encoded by gene 98.
XX
KW
     Human; secreted protein; fusion protein; gene therapy; protein therapy;
KW
     diagnosis; tissue; cancer; tumour; neurodegenerative disorder; leukaemia;
KW
     developmental abnormality; foetal deficiency; blood; allergy; renal;
KW
     immune system; asthma; lymphocytic disease; brain; hepatic; lymphoma;
```

```
KW
     inflammation; ischaemic shock; Alzheimer's disease; restenosis; AIDS;
KW
     cognitive disorder; schizophrenia; prostate; obesity; osteoclast; thymus;
KW
     osteoporosis; arthritis; testis; lung; thyroiditis; thyroid; digestion;
     endocrine; metabolism; regulation; malabsorption; gastritis; neoplasm.
KW
XX
OS
     Homo sapiens.
XX
     WO9902546-A1.
PN
XX
PD
     21-JAN-1999.
XX
PF
     07-JUL-1998;
                     98WO-US013684.
XX
PR
     08-JUL-1997;
                     97US-0051916P.
     08-JUL-1997:
                     97US-0051918P.
PR
PR
     08-JUL-1997;
                     97US-0051919P.
     08-JUL-1997;
                     97US-0051920P.
PR
PR
     08-JUL-1997;
                     97US-0051925P.
     08-JUL-1997;
                     97US-0051926P.
PR
     08-JUL-1997;
                     97US-0051928P.
PR
     08-JUL-1997;
PR
                     97US-0051929P.
PR
     08-JUL-1997;
                     97US-0051930P.
PR
     08-JUL-1997;
                     97US-0051931P.
PR
     08-JUL-1997;
                     97US-0051932P.
PR
     08-JUL-1997;
                     97US-0052732P.
     08-JUL-1997;
                     97US-0052733P.
PR
PR
     08-JUL-1997;
                     97US-0052793P.
PR
     08-JUL-1997;
                     97US-0052795P.
PR
     08-JUL-1997;
                     97US-0052803P.
     18-AUG-1997;
                     97US-0055684P.
PR
PR
     18-AUG-1997;
                     97US-0055722P.
PR
     18-AUG-1997;
                     97US-0055723P.
PR
     18-AUG-1997;
                     97US-0055947P.
PR
     18-AUG-1997;
                     97US-0055948P.
PR
     18-AUG-1997;
                     97US-0055949P.
PR
     18-AUG-1997;
                     97US-0055950P.
PR
     18-AUG-1997;
                     97US-0055953P.
PR
     18-AUG-1997;
                     97US-0055954P.
PR
     18-AUG-1997;
                     97US-0055964P.
PR
     18-AUG-1997;
                     97US-0055984P.
PR
     18-AUG-1997;
                     97US-0056360P.
PR
     12-SEP-1997;
                     97US-0058660P.
PR
     12-SEP-1997;
                     97US-0058661P.
PR
     12-SEP-1997;
                     97US-0058664P.
PR
     12-SEP-1997;
                     97US-0058785P.
XX
     (HUMA-) HUMAN GENOME SCI INC.
PΑ
XX.
PΙ
     Fischer CL,
                   Rosen CA,
                              Soppet DR,
                                           Ruben SM,
                                                      Kyaw H,
                                                                Li Y, Zeng Z;
PΙ
     Lafleur DW,
                   Moore PA,
                              Shi Y, Olsen HS,
                                                 Ebner R,
XX
DR
     WPI; 1999-120770/10.
XX
PT
     New isolated human genes and the secreted polypeptides they encode -
PT
     useful for diagnosis and treatment of e.g. cancers, neurological
PΤ
     disorders, immune diseases, inflammation or blood disorders.
```

XX

```
PS
     Disclosure; Page 115; 464pp; English.
XX
CC
     This sequence represents a fragment of a secreted human protein encoded
     by the nucleic acid molecule detailed in the descriptor line. The gene
CC
CC
     can be used to generate fusion proteins by linking to the gene to a human
CC
     immunoglobulin Fc portion (e.g. AAX27302) for increasing the stability of
CC
     the fused protein as compared to the human protein only. The invention
CC
     relates to 123 novel genes and their fragments (nucleic acid sequences:
CC
     AAX27311-X27449; amino acid sequences AAY02650-Y02788) which are useful
     for preventing, treating or ameliorating medical conditions e.g. by
CC
     protein or gene therapy. Also, pathological conditions can be diagnosed
CC
CC
     by determining the amount of the new polypeptides in a sample or by
CC
     determining the presence of mutations in the new polynucleotides.
     Specific uses are described for each of the 123 polynucleotides, based on
CC
     which tissues they are most highly expressed in (see AAX27311 for
CC
CC
     described uses)
XX
SO
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 7.9e+03;
  Matches
             3; Conservative
                                 0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            9 AIK 11
Qу
              III
            7 AIK 9
RESULT 48
AAY89315
     AAY89315 standard; peptide; 11 AA.
ID
XX
AC
     AAY89315;
XX
DT
     23-MAY-2000 (first entry)
XX
DΕ
     Core polypeptide fragment T No. 821.
XX
     Retrovirus; hybrid polypeptide; enhancer; gp41; envelope protein; HIV-1;
KW
KW
     HIV-2; SIV; pharmacokinetic; half-life; growth factor; cytokine; viral;
     anti-fusogenic; differentiation factor; interleukin; interferon;
KW
KW
     colony stimulating factor; hormone; angiogenic factor.
XX
OS
     Unidentified.
XX
PN
     WO9959615-A1.
XX
PD
     25-NOV-1999.
XX
PF
     20-MAY-1999;
                    99WO-US011219.
XX
PR
                    98US-00082279.
     20-MAY-1998;
XX
PA
     (TRIM-) TRIMERIS INC.
XX
PI
     Barney S, Guthrie KI, Merutka G, Anwer MK,
                                                    Lambert DM;
XX
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```
XX
PT
     A new hybrid polypeptide with enhanced pharmacokinetic properties
     comprises enhancer sequence.
PT
XX
     Disclosure; Page 34; 124pp; English.
PS
XX
CC
     The invention relates to hybrid polypeptides comprising enhancer peptide
CC
     sequence linked to core polypeptides. The enhancer polypeptides are
     derived from various retroviral envelope (gp41) protein sequences,
CC
     especially from HIV-1, HIV-2 and SIV. The enhancer peptides enhance the
CC
CC
     pharmacokinetic properties such as increasing the half-life of any core
CC
     polypeptide that they are linked to. The core polypeptides are any
CC
     polypeptide that may be introduced into a living system and that can
     function as a pharmacoligically useful peptide for the treatment or
CC
CC.
     prevention of a disease. The core polypeptides are bioactive peptides
CC
     selected from a growth factor, cytokine, differentiation factor,
     interleukin, interferon, colony stimulating factor, hormone or angiogenic
CC
     factor. The peptides of the invention can be used for inhibiting viral
CC
CC
     infection and can be used in anti-viral and anti-fusogenic treatments.
CC
     Sequences AAY88651-Y90055 represent core polypeptide fragments that can
CC
     be used in the invention. Some sequences among those indicated also
CC
     comprise enhancer fragments at terminal ends and form hybrid polypeptides
XX
SQ
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 3; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 7.9e+03;
  Matches
             3; Conservative
                               0; Mismatches
                                                   0;
                                                        Indels
                                                                              0;
            2 RKS 4
Qу
              +
            4 RKS 6
Db
RESULT 49
AAY81922
     AAY81922 standard; peptide; 11 AA.
XX
AC
     AAY81922;
XX
DT
     23-JUN-2000 (first entry)
XX
DE
     Asparagine protease recognition peptide.
XX
KW
     Asparagine protease recognition peptide; protease assay; enzyme cleavage;
KW
     plant protease.
XX
OS
     Glycine max.
XX
PN
     JP3015886-B1.
XX
PD
     06-MAR-2000.
XX
PF
     04-NOV-1998;
                    98JP-00327536.
XX
PR
     04-NOV-1998;
                    98JP-00327536.
```

WPI; 2000-136792/12.

DR

```
XX
     (NORQ ) NORINSUISANSHO SHOKUHIN SOGO.
PA
XX
     WPI; 2000-342275/30.
DR
XX
     Quick assay method of specific end protease activity of asparagine
PT
     residue of plant origin, involves distributing 7-methoxy phosphorous 4-yl
PT
PT
     -acetyl and 2,4-dinitrophenyl group to N-terminal side and C-terminal
PT
     side.
XX
PS
     Example 2; Page 9; 11pp; Japanese.
XX
CC
     This sequence represents a peptide recognised and cleaved by asparagine
CC
     protease. The invention relates to a quick assay method for asparagine
CC
     protease of plant origin. The asparagine protease specifically recognises
CC
     asparagine residues and cleaves proteins at the C-terminal end of the
CC
     asparagine residue. The assay uses a fluorescence substrate (which has
CC
     quenching properties) which distributes a 7-methoxy coumarin-4-yl-acetyl
CC
     group to the amino group of the glycine residue at the N-terminal side,
CC
     and a 2,4-dinitrophenyl group to the C-terminal of an amino acid
CC
     sequence. The fluorescence caused by the fluorescence substrate is not
CC
     connected to the asparagine residue and can be measured after cleavage by
     the protease. The method is useful for assaying asparagine proteases of
CC
CC
     plant origin. The activity of the protease can be determined within a
CC
     short time period and the enzyme activity can be measured with high
CC
     sensitivity using the fluorescence substrate. The procedure is quick even
CC
     when materials which inhibit other protease and fluorescence are included
CC
     in the sample
XX
SQ
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 3; Length 11;
                          100.0%; Pred. No. 7.9e+03;
  Best Local Similarity
                              0; Mismatches
 Matches
            3; Conservative
                                                   0; Indels
                                                                 0; Gaps
                                                                              0;
Qy
            3 KSR 5
              Db
            2 KSR 4
RESULT 50
AAY81923
     AAY81923 standard; peptide; 11 AA.
ID
XX
AC
    AAY81923;
XX
DT
     23-JUN-2000 (first entry)
XX
DE
     Asparagine protease recognition peptide.
XX
KW
     Asparagine protease recognition peptide; protease assay; enzyme cleavage;
KW
     plant protease.
XX
OS
     Glycine max.
XX
PN
     JP3015886-B1.
XX
```

```
06-MAR-2000.
PD
XX
     04-NOV-1998;
PF
                    98JP-00327536.
XX
PR.
     04-NOV-1998;
                    98JP-00327536.
XX
PΑ
     (NORQ ) NORINSUISANSHO SHOKUHIN SOGO.
XX
DR
     WPI; 2000-342275/30.
XX
PT
     Quick assay method of specific end protease activity of asparagine
PT
     residue of plant origin, involves distributing 7-methoxy phosphorous 4-yl
PT
     -acetyl and 2,4-dinitrophenyl group to N-terminal side and C-terminal
PT
     side.
XX
PS
     Example 2; Page 9; 11pp; Japanese.
XX
CC
     This sequence represents a peptide recognised and cleaved by asparagine
CC
     protease. The invention relates to a quick assay method for asparagine
CC
     protease of plant origin. The asparagine protease specifically recognises
CC
     asparagine residues and cleaves proteins at the C-terminal end of the
CC
     asparagine residue. The assay uses a fluorescence substrate (which has
CC
     quenching properties) which distributes a 7-methoxy coumarin-4-yl-acetyl
CC
     group to the amino group of the glycine residue at the N-terminal side,
CC
     and a 2,4-dinitrophenyl group to the C-terminal of an amino acid
CC
     sequence. The fluorescence caused by the fluorescence substrate is not
CC
     connected to the asparagine residue and can be measured after cleavage by
CC
     the protease. The method is useful for assaying asparagine proteases of
CC
     plant origin. The activity of the protease can be determined within a
CC
     short time period and the enzyme activity can be measured with high
CC
     sensitivity using the fluorescence substrate. The procedure is quick even
CC
     when materials which inhibit other protease and fluorescence are included
CC
     in the sample
XX
SO
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3;
                                            DB 3; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 7.9e+03;
            3; Conservative
                                 0; Mismatches
                                                   0; Indels
                                                                  0;
                                                                      Gaps
                                                                              0;
            3 KSR 5
Qу
              III
            2 KSR 4
RESULT 51
AAY81915
     AAY81915 standard; peptide; 11 AA.
ID
XX
AC
     AAY81915;
XX
DT
     23-JUN-2000 (first entry)
XX
DE
     Asparagine protease recognition peptide.
XX
KW
     Asparagine protease recognition peptide; protease assay; enzyme cleavage;
KW
     plant protease.
```

```
XX
OS
     Glycine max.
XX
PN
     JP3015886-B1.
XX
PD
     06-MAR-2000.
XX
PF
     04-NOV-1998;
                    98JP-00327536.
XX
PR
     04-NOV-1998;
                    98JP-00327536.
XX
PΑ
     (NORQ ) NORINSUISANSHO SHOKUHIN SOGO.
XX
DR
    WPI; 2000-342275/30.
XX
PT
     Quick assay method of specific end protease activity of asparagine
PT
     residue of plant origin, involves distributing 7-methoxy phosphorous 4-yl
PT
     -acetyl and 2,4-dinitrophenyl group to N-terminal side and C-terminal
PT
     side.
XX
PS
     Claim 1; Page 8; 11pp; Japanese.
XX
CC
    This sequence represents a peptide recognised and cleaved by asparagine
CC
     protease. The invention relates to a quick assay method for asparagine
    protease of plant origin. The asparagine protease specifically recognises
CC
CC
     asparagine residues and cleaves proteins at the C-terminal end of the
     asparagine residue. The assay uses a fluorescence substrate (which has
CC
CC
     quenching properties) which distributes a 7-methoxy coumarin-4-yl-acetyl
CC
     group to the amino group of the glycine residue at the N-terminal side,
CC
     and a 2,4-dinitrophenyl group to the C-terminal of an amino acid
CC
     sequence. The fluorescence caused by the fluorescence substrate is not
CC
     connected to the asparagine residue and can be measured after cleavage by
CC
     the protease. The method is useful for assaying asparagine proteases of
     plant origin. The activity of the protease can be determined within a
CC
CC
     short time period and the enzyme activity can be measured with high
CC
     sensitivity using the fluorescence substrate. The procedure is quick even
     when materials which inhibit other protease and fluorescence are included
CC
CC.
     in the sample
XX
SQ
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 3; Length 11;
                          100.0%; Pred. No. 7.9e+03;
  Best Local Similarity
            3; Conservative
                              0; Mismatches
  Matches
                                                   0; Indels
                                                                 0; Gaps
                                                                              0;
            3 KSR 5
Qу
              111
Db
            2 KSR 4
RESULT 52
AAY81924
    AAY81924 standard; peptide; 11 AA.
XX
AC
     AAY81924;
XX
DT
     23-JUN-2000 (first entry)
```

```
XX
DE
     Asparagine protease recognition peptide.
XX
     Asparagine protease recognition peptide; protease assay; enzyme cleavage;
KW
ΚW
     plant protease.
XX
OS
     Glycine max.
XX
PN
     JP3015886-B1.
XX
PD
     06-MAR-2000.
XX
PF
     04-NOV-1998;
                    98JP-00327536.
XX
     04-NOV-1998;
                    98JP-00327536.
PR
XX
PΑ
     (NORQ ) NORINSUISANSHO SHOKUHIN SOGO.
XX
     WPI; 2000-342275/30.
DR
XX
     Quick assay method of specific end protease activity of asparagine
PT
PТ
     residue of plant origin, involves distributing 7-methoxy phosphorous 4-yl
PT
     -acetyl and 2,4-dinitrophenyl group to N-terminal side and C-terminal
PT
     side.
XX
PS
     Example 2; Page 9; 11pp; Japanese.
XX
CC
     This sequence represents a peptide recognised and cleaved by asparagine
     protease. The invention relates to a quick assay method for asparagine
CC
     protease of plant origin. The asparagine protease specifically recognises
CC
CC
     asparagine residues and cleaves proteins at the C-terminal end of the
CC
     asparagine residue. The assay uses a fluorescence substrate (which has
CC
     quenching properties) which distributes a 7-methoxy coumarin-4-yl-acetyl
     group to the amino group of the glycine residue at the N-terminal side,
CC
CC
     and a 2,4-dinitrophenyl group to the C-terminal of an amino acid
CC
     sequence. The fluorescence caused by the fluorescence substrate is not
     connected to the asparagine residue and can be measured after cleavage by
CC
CC
     the protease. The method is useful for assaying asparagine proteases of
CC
     plant origin. The activity of the protease can be determined within a
CC
     short time period and the enzyme activity can be measured with high
     sensitivity using the fluorescence substrate. The procedure is quick even
CC
     when materials which inhibit other protease and fluorescence are included
CC
CC
     in the sample
XX
SQ
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 3; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 7.9e+03;
             3; Conservative 0; Mismatches
                                                                              0;
  Matches
                                                   0; Indels
                                                                  0;
                                                                      Gaps
            3 KSR 5
Qу
              III
            2 KSR 4
Db
```

```
ID
     AAY81916 standard; peptide; 11 AA.
XX
AC
     AAY81916;
XX
DT
     23-JUN-2000
                  (first entry)
XX
    Asparagine protease recognition peptide.
DE
XX
KW
     Asparagine protease recognition peptide; protease assay; enzyme cleavage;
KW
     plant protease.
XX
os
     Glycine max.
XX
     JP3015886-B1.
PN
XX
PD
     06-MAR-2000.
XX
PF
     04-NOV-1998;
                    98JP-00327536.
XX
PR
     04-NOV-1998;
                    98JP-00327536.
XX
PΑ
     (NORQ ) NORINSUISANSHO SHOKUHIN SOGO.
XX
DR
     WPI; 2000-342275/30.
XX
PT
     Quick assay method of specific end protease activity of asparagine
PT
     residue of plant origin, involves distributing 7-methoxy phosphorous 4-yl
PT
     -acetyl and 2,4-dinitrophenyl group to N-terminal side and C-terminal
PT
     side.
XX
PS
     Claim 1; Page 8; 11pp; Japanese.
XX
CC
     This sequence represents a peptide recognised and cleaved by asparagine
     protease. The invention relates to a quick assay method for asparagine
CC
CC
     protease of plant origin. The asparagine protease specifically recognises
CC
     asparagine residues and cleaves proteins at the C-terminal end of the
CC
     asparagine residue. The assay uses a fluorescence substrate (which has
CC
     quenching properties) which distributes a 7-methoxy coumarin-4-yl-acetyl
CC
     group to the amino group of the glycine residue at the N-terminal side,
CC
     and a 2,4-dinitrophenyl group to the C-terminal of an amino acid
CC
     sequence. The fluorescence caused by the fluorescence substrate is not
CC
     connected to the asparagine residue and can be measured after cleavage by
CC
     the protease. The method is useful for assaying asparagine proteases of
CC
     plant origin. The activity of the protease can be determined within a
CC
     short time period and the enzyme activity can be measured with high
CC
     sensitivity using the fluorescence substrate. The procedure is quick even
CC
     when materials which inhibit other protease and fluorescence are included
CC
     in the sample
XX
SQ
     Sequence 11 AA;
                          27.3%; Score 3; DB 3; Length 11;
  Query Match
                          100.0%; Pred. No. 7.9e+03;
  Best Local Similarity
             3;
                Conservative
                                0; Mismatches
                                                   0;
                                                       Indels
                                                                              0;
                                                                      Gaps
```

```
RESULT 54
AAY81919
ID
     AAY81919 standard; peptide; 11 AA.
XX
AC
     AAY81919;
XX
DT
     23-JUN-2000 (first entry)
XX
DE
     Asparagine protease recognition peptide.
XX
KW
     Asparagine protease recognition peptide; protease assay; enzyme cleavage;
KW
     plant protease.
XX
OS
     Glycine max.
XX
     JP3015886-B1.
PN
XX
PD
     06-MAR-2000.
XX
PF
     04-NOV-1998;
                    98JP-00327536.
XX
PR
     04-NOV-1998;
                    98JP-00327536.
XX
PA
     (NORQ ) NORINSUISANSHO SHOKUHIN SOGO.
XX
DR
     WPI; 2000-342275/30.
XX
PT
     Quick assay method of specific end protease activity of asparagine
     residue of plant origin, involves distributing 7-methoxy phosphorous 4-yl
PT
PT
     -acetyl and 2,4-dinitrophenyl group to N-terminal side and C-terminal
PT
XX
PS
     Claim 1; Page 9; 11pp; Japanese.
XX
CC
     This sequence represents a peptide recognised and cleaved by asparagine
CC
     protease. The invention relates to a quick assay method for asparagine
     protease of plant origin. The asparagine protease specifically recognises
CC
CC
     asparagine residues and cleaves proteins at the C-terminal end of the
     asparagine residue. The assay uses a fluorescence substrate (which has
CC
CC
     quenching properties) which distributes a 7-methoxy coumarin-4-yl-acetyl
CC
     group to the amino group of the glycine residue at the N-terminal side,
CC
     and a 2,4-dinitrophenyl group to the C-terminal of an amino acid
CC
     sequence. The fluorescence caused by the fluorescence substrate is not
CC
     connected to the asparagine residue and can be measured after cleavage by
     the protease. The method is useful for assaying asparagine proteases of
CC
     plant origin. The activity of the protease can be determined within a
CC
CC
     short time period and the enzyme activity can be measured with high
CC
     sensitivity using the fluorescence substrate. The procedure is quick even
     when materials which inhibit other protease and fluorescence are included
CC
CC
     in the sample
XX
SQ
     Sequence 11 AA;
```

```
3; Conservative 0; Mismatches 0; Indels
  Matches
                                                                              0;
                                                                 0; Gaps
            3 KSR 5
Qу
              111
            2 KSR 4
Db
RESULT 55
AAY81918
ID
     AAY81918 standard; peptide; 11 AA.
XX
AC
     AAY81918;
XX
     23-JUN-2000 (first entry)
DT
XX
DE
     Asparagine protease recognition peptide.
XX
KW
     Asparagine protease recognition peptide; protease assay; enzyme cleavage;
KW
     plant protease.
XX
OS
     Glycine max.
XX
PN
     JP3015886-B1.
XX
PD
     06-MAR-2000.
XX
PF
     04-NOV-1998;
                    98JP-00327536.
XX
PR
     04-NOV-1998;
                    98JP-00327536.
XX
PA
     (NORQ ) NORINSUISANSHO SHOKUHIN SOGO.
XX
     WPI; 2000-342275/30.
DR
XX
PT
     Quick assay method of specific end protease activity of asparagine
PT
     residue of plant origin, involves distributing 7-methoxy phosphorous 4-yl
PT
     -acetyl and 2,4-dinitrophenyl group to N-terminal side and C-terminal
PT
     side.
XX
PS
     Claim 1; Page 9; 11pp; Japanese.
XX
CC
     This sequence represents a peptide recognised and cleaved by asparagine
CC
     protease. The invention relates to a quick assay method for asparagine
CC
     protease of plant origin. The asparagine protease specifically recognises
CC
     asparagine residues and cleaves proteins at the C-terminal end of the
CC
     asparagine residue. The assay uses a fluorescence substrate (which has
CC
     quenching properties) which distributes a 7-methoxy coumarin-4-yl-acetyl
CC
     group to the amino group of the glycine residue at the N-terminal side,
CC
     and a 2,4-dinitrophenyl group to the C-terminal of an amino acid
CC
     sequence. The fluorescence caused by the fluorescence substrate is not
CC
     connected to the asparagine residue and can be measured after cleavage by
CC
     the protease. The method is useful for assaying asparagine proteases of
CC
     plant origin. The activity of the protease can be determined within a
CC
     short time period and the enzyme activity can be measured with high
CC
     sensitivity using the fluorescence substrate. The procedure is quick even
CC
     when materials which inhibit other protease and fluorescence are included
```

Best Local Similarity 100.0%; Pred. No. 7.9e+03;

```
XX
     Sequence 11 AA;
SQ
  Query Match
                           27.3%; Score 3; DB 3; Length 11;
  Best Local Similarity 100.0%; Pred. No. 7.9e+03;
  Matches
             3; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                   0; Gaps
                                                                                0;
            3 KSR 5
Qу
              \mathbf{1} \mathbf{1} \mathbf{1}
            2 KSR 4
Db
RESULT 56
AAY81920
     AAY81920 standard; peptide; 11 AA.
ΙD
XX
AC
     AAY81920;
XX
DT
     23-JUN-2000
                  (first entry)
XX
DE
     Asparagine protease recognition peptide.
XX
KW
     Asparagine protease recognition peptide; protease assay; enzyme cleavage;
KW
     plant protease.
XX
OS
     Glycine max.
XX
PN
     JP3015886-B1.
XX
PD
     06-MAR-2000.
XX
PF
     04-NOV-1998;
                    98JP-00327536.
XX
PR
     04-NOV-1998;
                    98JP-00327536.
XX
PA
     (NORQ ) NORINSUISANSHO SHOKUHIN SOGO.
XX
DR
     WPI; 2000-342275/30.
XX
     Quick assay method of specific end protease activity of asparagine
PT
PT
     residue of plant origin, involves distributing 7-methoxy phosphorous 4-yl
PT
     -acetyl and 2,4-dinitrophenyl group to N-terminal side and C-terminal
PT
     side.
XX
PS
     Claim 1; Page 9; 11pp; Japanese.
XX
CC
     This sequence represents a peptide recognised and cleaved by asparagine
CC
     protease. The invention relates to a quick assay method for asparagine
CC
     protease of plant origin. The asparagine protease specifically recognises
CC
     asparagine residues and cleaves proteins at the C-terminal end of the
CC
     asparagine residue. The assay uses a fluorescence substrate (which has
CC
     quenching properties) which distributes a 7-methoxy coumarin-4-yl-acetyl
CC
     group to the amino group of the glycine residue at the N-terminal side,
     and a 2,4-dinitrophenyl group to the C-terminal of an amino acid
CC
CC
     sequence. The fluorescence caused by the fluorescence substrate is not
CC
     connected to the asparagine residue and can be measured after cleavage by
```

CC

in the sample

```
plant origin. The activity of the protease can be determined within a
CC
     short time period and the enzyme activity can be measured with high
CC
CC
     sensitivity using the fluorescence substrate. The procedure is quick even
CC
     when materials which inhibit other protease and fluorescence are included
CC
     in the sample
XX
     Sequence 11 AA;
SO
                          27.3%; Score 3; DB 3; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 7.9e+03;
             3; Conservative
                              0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
  Matches
            3 KSR 5
Qy
              HI
            2 KSR 4
Db
RESULT 57
AAY81917
     AAY81917 standard; peptide; 11 AA.
TD
XX
AC
     AAY81917;
XX
DΤ
     23-JUN-2000 (first entry)
XX
DE
     Asparagine protease recognition peptide.
XX
KW
     Asparagine protease recognition peptide; protease assay; enzyme cleavage;
KW
     plant protease.
XX
OS
     Glycine max.
XX
PN
     JP3015886-B1.
XX
PD
     06-MAR-2000.
XX
     04-NOV-1998;
                    98JP-00327536.
PF
XX
PR
     04-NOV-1998;
                    98JP-00327536.
XX
     (NORQ ) NORINSUISANSHO SHOKUHIN SOGO.
PA
XX
     WPI; 2000-342275/30.
DR
XX
     Quick assay method of specific end protease activity of asparagine
PT
     residue of plant origin, involves distributing 7-methoxy phosphorous 4-yl
PT
     -acetyl and 2,4-dinitrophenyl group to N-terminal side and C-terminal
PT
PТ
XX
     Claim 1; Page 8; 11pp; Japanese.
PS
XX
     This sequence represents a peptide recognised and cleaved by asparagine
CC
     protease. The invention relates to a quick assay method for asparagine
CC
CC
     protease of plant origin. The asparagine protease specifically recognises
     asparagine residues and cleaves proteins at the C-terminal end of the
CC
CC
     asparagine residue. The assay uses a fluorescence substrate (which has
```

the protease. The method is useful for assaying asparagine proteases of

```
quenching properties) which distributes a 7-methoxy coumarin-4-yl-acetyl
CC
     group to the amino group of the glycine residue at the N-terminal side,
CC
     and a 2,4-dinitrophenyl group to the C-terminal of an amino acid
CC
     sequence. The fluorescence caused by the fluorescence substrate is not
CC
     connected to the asparagine residue and can be measured after cleavage by
     the protease. The method is useful for assaying asparagine proteases of
CC
CC
     plant origin. The activity of the protease can be determined within a
CC
     short time period and the enzyme activity can be measured with high
CC
     sensitivity using the fluorescence substrate. The procedure is quick even
     when materials which inhibit other protease and fluorescence are included
CC
CC
     in the sample
XX
SQ
     Sequence 11 AA;
                          27.3%; Score 3; DB 3; Length 11;
  Query Match
                          100.0%; Pred. No. 7.9e+03;
  Best Local Similarity
             3; Conservative
                              0; Mismatches
                                                   0;
                                                       Indels
                                                                  0;
                                                                      Gaps
                                                                              0;
            3 KSR 5
Qγ
              111
Db
            2 KSR 4
RESULT 58
AAY81921
ID
     AAY81921 standard; peptide; 11 AA.
XX
AC
    AAY81921;
XX
DT
     23-JUN-2000 (first entry)
XX
DΕ
     Asparagine protease recognition peptide.
XX
KW
     Asparagine protease recognition peptide; protease assay; enzyme cleavage;
KW
     plant protease.
XX
OS
     Glycine max.
XX
     JP3015886-B1.
PN
XX
PD
     06-MAR-2000.
XX
PF
     04-NOV-1998;
                    98JP-00327536.
XX
PR
     04-NOV-1998; 98JP-00327536.
XX
PΑ
     (NORQ ) NORINSUISANSHO SHOKUHIN SOGO.
XX
     WPI; 2000-342275/30.
DR
XX
PT
     Quick assay method of specific end protease activity of asparagine
     residue of plant origin, involves distributing 7-methoxy phosphorous 4-yl
PT
     -acetyl and 2,4-dinitrophenyl group to N-terminal side and C-terminal
PT
PT
     side.
XX
PS
     Example 2; Page 9; 11pp; Japanese.
XX
```

```
This sequence represents a peptide recognised and cleaved by asparagine
CC
    protease. The invention relates to a quick assay method for asparagine
CC
    protease of plant origin. The asparagine protease specifically recognises
CC
CC
     asparagine residues and cleaves proteins at the C-terminal end of the
CC
     asparagine residue. The assay uses a fluorescence substrate (which has
CC
     quenching properties) which distributes a 7-methoxy coumarin-4-yl-acetyl
     group to the amino group of the glycine residue at the N-terminal side,
CC
CC
     and a 2,4-dinitrophenyl group to the C-terminal of an amino acid
CC
     sequence. The fluorescence caused by the fluorescence substrate is not
CC
     connected to the asparagine residue and can be measured after cleavage by
     the protease. The method is useful for assaying asparagine proteases of
CC
CC
    plant origin. The activity of the protease can be determined within a
CC
     short time period and the enzyme activity can be measured with high
     sensitivity using the fluorescence substrate. The procedure is quick even
CC
     when materials which inhibit other protease and fluorescence are included
CC
CC
    in the sample
XX
SQ
     Sequence 11 AA;
                          27.3%; Score 3; DB 3; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 7.9e+03;
                                0; Mismatches
                                                                 0; Gaps
                                                                              0:
 Matches
            3; Conservative
                                                   0; Indels
            3 KSR 5
Qу
              111
Db
            2 KSR 4
RESULT 59
AAB16453
ΤD
    AAB16453 standard; peptide; 11 AA.
XX
АC
    AAB16453;
XX
DT
     27-OCT-2000
                 (first entry)
XX
DE
     Linear peptide that binds to angiostatin SEQ ID # 4.
XX
     Angiogenesis-inhibiting protein receptor; angiogenesis; angiostatin;
KW
     endostatin; plasminogen; laminin; treatment; wound healing; solid tumour;
KW
     psoriasis; scleroderma; myocardial angiogenesis; Crohn's disease;
KW
     cerebral collateral; arteriovenous malformation; rubeosis; cancer;
KW
     diabetic retinopathy; arthritis; wound healing; peptic ulcer;
KW
KW
     Helicobacter related disease; fracture; cat scratch fever.
XX
OS
     Synthetic.
XX
     WO200032631-A2.
PN
XX
PD
     08-JUN-2000.
XX
PF
     06-DEC-1999;
                    99WO-US028897.
XX
PR
     04-DEC-1998;
                    98US-00206059.
XX
PA
     (ENTR-) ENTREMED INC.
```

```
Macdonald NJ, Sim KL;
PΙ
XX
     WPI; 2000-412290/35.
DR
XX
PT
     New angiogenesis-inhibiting protein receptors, useful in methods for
PT
     treating diseases and processes that are mediated by angiogenesis, such
     as solid tumors, psoriasis, scleroderma and myocardial angiogenesis.
PT
XX
PS
     Claim 1; Page 35; 100pp; English.
XX
CC
     This invention relates to angiogenesis-inhibiting protein receptors, and
CC
     the DNA sequences encoding them. Angiogenesis is the generation of new
CC
     blood vessels into a tissue, and normally occurs in wound healing, foetal
CC
     and embryonal development and the formation of the corpus luteum,
CC
     endometrium and placenta. Angiostatin is a protein (see AAB16450 and
CC
     AAA68202) involved in angiogenesis, and has an amino acid sequence
CC
     similar to that of a plasminogen fragment (see murine plasminogen
CC
     AAB16490). Angiostatin has the ability to inhibit angiogenesis.
CC
     Endostatin is also an angiogenesis inhibiting protein (see AAB16451 and
     AAA68203). Sequences AAA68242 and AAB16522 represent coding and protein
CC
ĊC
     sequences of human laminin. Laminin is an angiostatin binding protein,
CC
     and some of the peptides of the invention share homology with regions of
     laminin. Peptides AAB16452-B16521 (excluding AAB16490) are the
CC
CC
     angiogenesis-inhibiting protein receptor fragments of the invention. The
CC
     peptides bind either angiostatin or endostatin and can be used in methods
CC
     for treating diseases and processes that are mediated by angiogenesis,
CC
     such as solid tumours, psoriasis, scleroderma, myocardial angiogenesis,
CC
     Crohn's disease, cerebral collaterals, arteriovenous malformations,
CC
     rubeosis, diabetic retinopathy, arthritis, wound healing, peptic ulcers,
     Helicobacter related diseases, fractures, placentation and cat scratch
CC
CC
     fever. They are useful for the detection and prognosis of cancer. DNA
CC
     sequences A628204-A628241 encode the peptides of the invention
XX
     Sequence 11 AA;
SO
  Query Match
                          27.3%; Score 3; DB 3; Length 11;
                          100.0%;
  Best Local Similarity
                                   Pred. No. 7.9e+03;
  Matches
             3; Conservative
                                 0; Mismatches
                                                       Indels
                                                                  0;
                                                   0;
                                                                      Gaps
                                                                              0;
            9 AIK 11
Qу
              | | |
            5 AIK 7
Db
RESULT 60
AAY88542
     AAY88542 standard; peptide; 11 AA.
XX
AC
     AAY88542;
XX
DT
     07-AUG-2000
                 (first entry)
XX
DE
     NCAM Iql binding peptide #14.
XX
KW
     NCAM; neural cell adhesion molecule; Iq1; immunoqlobulin domain 1;
KW
     neurite outgrowth promoter; proliferation; nerve damage; sclerosis;
     impaired myelination; stroke; Parkinson's disease; memory; schizophrenia;
KW
```

Alzheimer's disease; diabetes mellitus; circadian clock; nephrosis; KW treatment; prosthetic nerve guide; treatment; nervous system. KW XX Synthetic. OS XX WO200018801-A2. PNXX 06-APR-2000. PDXX 23-SEP-1999; 99WO-DK000500. PFXX 29-SEP-1998; 98DK-00001232. PR 29-APR-1999; 99DK-00000592. PRXX(RONN/) RONN L C B. PA(BOCK/) BOCK E. PΑ (HOLM/) HOLM A. PA(OLSE/) OLSEN M. PAPA(OSTE/) OSTERGAARD S. (JENS/) JENSEN P H. PA(POUL/) POULSEN F M. PA(SORO/) SOROKA V. PA(RALE/) RALETS I. PAPA(BERE/) BEREZIN V. XXΡI Ronn LCB, Bock E, Holm A, Olsen M, Ostergaard S, Jensen PH; PIPoulsen FM, Soroka V, Ralets I, Berezin V; XX DR WPI; 2000-293111/25. XX Compositions that bind neural cell adhesion molecules useful for treating PTdisorders of the nervous system and muscles e.g. Alzheimer's and PTPTParkinson's diseases. XX PSExample 4; Page 25; 119pp; English. XX CC Neural cell adhesion molecule (NCAM) is a cellular adhesion molecule. CC NCAM is found in three forms, two of which are transmembrane forms, while CC the third is attached via a lipid anchor to the cell membrane. All three NCAM forms have an extracellular structure consisting five immunoglobulin CCdomains (Ig domains). The Ig domains are numbered 1 to 5 from the N- $\,$ CCCC terminal. The present sequence represents a peptide which binds to the CC NCAM Iql domain. The peptide can be used in a compound which binds to NCAM-Iq1/Iq2 domains, and is capable of stimulating or promoting neurite CC CC outgrowth from NCAM presenting cells, and is also capable of promoting the proliferation of NCAM presenting cells. The compound may be used in CC

the treatment of normal, degenerated or damaged NCAM presenting cells. The compound may in particular be used to treat diseases of the central

and peripheral nervous systems such as post operative nerve damage, traumatic nerve damage, impaired myelination of nerve fibres, conditions

resulting from a stroke, Parkinson's disease, Alzheimer's disease,

mellitus, disorders affecting the circadian clock or neuro-muscular

transmission and schizophrenia. Conditions affecting the muscles may also

be treated with the compound, such as conditions associated with impaired function of neuromuscular connections (e.g. genetic or traumatic shock or

traumatic atrophic muscle disorders). Conditions of the gonads, pancreas

dementias, sclerosis, nerve degeneration associated with diabetes

CC

CC

CC

CC

CC

CC

CC

```
(e.g. diabetes mellitus types I and II), kidney (e.g. nephrosis), heart,
CC
    liver and bowel may also be treated using the compound. The compound is
CC
     used in a prosthetic nerve quide, and also to stimulate the ability to
CC
CC
     learn, and to stimulate the memory of a subject
XX
SQ
     Sequence 11 AA;
 Query Match
                          27.3%; Score 3; DB 3; Length 11;
 Best Local Similarity 100.0%; Pred. No. 7.9e+03;
 Matches
           3; Conservative 0; Mismatches 0; Indels
                                                                 0; Gaps
                                                                             0;
            1 ARK 3
Qу
             111
           1 ARK 3
Db
RESULT 61
AAY88549
    AAY88549 standard; peptide; 11 AA.
AC
    AAY88549;
XX
DT
     07-AUG-2000 (first entry)
XX
DE
    NCAM Ig1 binding peptide #21.
XX
     NCAM; neural cell adhesion molecule; Ig1; immunoglobulin domain 1;
KW
     neurite outgrowth promoter; proliferation; nerve damage; sclerosis;
KW
     impaired myelination; stroke; Parkinson's disease; memory; schizophrenia;
KW
    Alzheimer's disease; diabetes mellitus; circadian clock; nephrosis;
KW
     treatment; prosthetic nerve guide; treatment; nervous system.
KW
XX
OS
     Synthetic.
XX
ΡN
     W0200018801-A2.
XX
PD
     06-APR-2000.
XX
     23-SEP-1999; 99WO-DK000500.
PF
XX
                    98DK-00001232.
PR
     29-SEP-1998;
PR
     29-APR-1999; 99DK-00000592.
XX
     (RONN/) RONN L C B.
PA
PΑ
     (BOCK/) BOCK E.
     (HOLM/) HOLM A.
PA
     (OLSE/) OLSEN M.
PA
     (OSTE/) OSTERGAARD S.
PA
     (JENS/) JENSEN P H.
PΑ
     (POUL/) POULSEN F M.
PA
PΑ
     (SORO/) SOROKA V.
PΑ
     (RALE/) RALETS I.
PA
     (BERE/) BEREZIN V.
XX
PΙ
     Ronn LCB, Bock E, Holm A, Olsen M, Ostergaard S,
PI
     Poulsen FM, Soroka V, Ralets I, Berezin V;
XX
```

```
DR
     WPI; 2000-293111/25.
XX
PT
     Compositions that bind neural cell adhesion molecules useful for treating
     disorders of the nervous system and muscles e.g. Alzheimer's and
PT
PT
     Parkinson's diseases.
XX
PS
     Example 4; Page 25; 119pp; English.
XX
CC
     Neural cell adhesion molecule (NCAM) is a cellular adhesion molecule.
     NCAM is found in three forms, two of which are transmembrane forms, while
CC
     the third is attached via a lipid anchor to the cell membrane. All three
CC
     NCAM forms have an extracellular structure consisting five immunoglobulin
CC
CC
     domains (Iq domains). The Iq domains are numbered 1 to 5 from the N-
CC
     terminal. The present sequence represents a peptide which binds to the
     NCAM Igl domain. The peptide can be used in a compound which binds to
CC
     NCAM-Ig1/Ig2 domains, and is capable of stimulating or promoting neurite
CC
     outgrowth from NCAM presenting cells, and is also capable of promoting
CC
     the proliferation of NCAM presenting cells. The compound may be used in
CC
     the treatment of normal, degenerated or damaged NCAM presenting cells.
CC
CC
     The compound may in particular be used to treat diseases of the central
CC
     and peripheral nervous systems such as post operative nerve damage,
     traumatic nerve damage, impaired myelination of nerve fibres, conditions
CC
CC
     resulting from a stroke, Parkinson's disease, Alzheimer's disease,
CC
     dementias, sclerosis, nerve degeneration associated with diabetes
     mellitus, disorders affecting the circadian clock or neuro-muscular
CC
CC
     transmission and schizophrenia. Conditions affecting the muscles may also
CC
     be treated with the compound, such as conditions associated with impaired
CC
     function of neuromuscular connections (e.g. genetic or traumatic shock or
     traumatic atrophic muscle disorders). Conditions of the gonads, pancreas
CC
CC
     (e.g. diabetes mellitus types I and II), kidney (e.g. nephrosis), heart,
CC
     liver and bowel may also be treated using the compound. The compound is
     used in a prosthetic nerve guide, and also to stimulate the ability to
CC
     learn, and to stimulate the memory of a subject
CC
XX
SQ
     Sequence 11 AA;
  Query Match
                          27.3%;
                                  Score 3; DB 3; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 7.9e+03;
  Matches
             3; Conservative
                                 0; Mismatches
                                                   0;
                                                       Indels
                                                                  0;
                                                                      Gaps
                                                                              0;
            3 KSR 5
Qу
              111
            2 KSR 4
RESULT 62
AAB10140
     AAB10140 standard; peptide; 11 AA.
ID
XX
AC
     AAB10140;
XX
DT
     10-NOV-2000
                  (first entry)
XX
DE
     Insertion sequence ISS1/1 Polymerase N-terminal protein fragment 39/2.
XX
     Insertion sequence; ISS1/1; heat stable polymerase;
ΚW
KW
     3'-5'-exonuclease activity.
```

```
XX
OS
     Unidentified.
XX
PΝ
     DE19859107-A1.
XX
PD
     29-JUN-2000.
XX
PF
     21-DEC-1998;
                    98DE-01059107.
XX
PR
     21-DEC-1998;
                    98DE-01059107.
XX
PA
     (HOFF ) ROCHE DIAGNOSTICS GMBH.
XX
PI,
     Frey B, Sobek H, Schmitz-Aghequian G, Thomm M, Kath-Petersen R;
XX
DR
    WPI; 2000-476975/42.
XX
PT
    New heat-stable polymerase from ISS1/1, useful for amplification of,
     labeling and extending nucleic acids, has 3'-5'- but not 5'-3'-
PT
PT
     exonuclease activity.
XX
PS
     Example 8; Page 11; 40pp; German.
XX
CC
    This invention describes a novel heat-stable polymerase (I), from ISS1/1
CC
    which is homologous to PolI of Escherichia coli, that has 3'-5'-
     exonuclease activity but lacks 5'-3'-exonuclease activity. (I), and their
CC
CC
    mutated/modified forms with reduced 3'-exonuclease activity, are used for
CC
    labeling, amplifying and extending nucleic acids, especially in
CC
    polymerase chain reactions, but also e.g. for nick translation and for
CC
     random-priming labeling reactions. Mutation of (I) allow its 3'-5'-
CC
     exonuclease activity, very strong in the native enzyme, to be adjusted to
     suit particular applications, while retaining its high processivity
CC
CC
     (which can be increased further when used with associated proteins). (I)
CC
     can generate very long (over 2 kb) amplicons, which requires only small
CC
     amounts of template sequences, and reduces accumulation of errors. This
     sequence represents an N-terminal fragment of the insertion sequence
CC
CC
     ISS1/1 polymerase described in the method of the invention
XX
SO
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 3; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 7.9e+03;
             3; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                  0;
                                                                      Gaps
                                                                              0;
            9 AIK 11
Qу
              111
            9 AIK 11
RESULT 63
AAY93544
     AAY93544 standard; peptide; 11 AA.
XX
AC
    AAY93544;
XX
DT
     25-SEP-2000 (first entry)
XX
```

```
Amino acid sequence of a synthetic protein transduction domain.
DE
XX
     Protein transduction system; protein transduction domain;
ΚW
     cytotoxic domain; pathogen infection; retroviral infection;
KW
KW
     plasmodial infection; cancer; prostate cancer.
XX
OS
     Synthetic.
XX
PN
     WO200034308-A2.
XX
PD
     15-JUN-2000.
XX
PF
     10-DEC-1999;
                    99WO-US029289.
XX
     10-DEC-1998;
PR
                    98US-0111701P.
XX
     (UNIW ) UNIV WASHINGTON.
PA
XX
PΙ
     Dowdy SF;
XX
DR
     WPI; 2000-431269/37.
XX
PT
     Protein transduction system for treating cancer and pathogenic infections
PT
     has a fusion protein comprising a protein transduction domain covalently
     linked to a cytotoxic domain.
PT
XX
PS
     Claim 66; Page 98; 127pp; English.
XX
CC
     AAY93542-51 represent synthetic protein transduction domains, which are
CC
     used in the protein transduction system of the invention. The
CC
     specification describes a protein transduction system, which comprises a
CC
     fusion protein. This fusion protein has a covalently linked protein
CC
     transduction domain and cytotoxic domain. The system is useful for
CC
     treating pathogen infection in mammals, infections such as those caused
     by CMV, HSV-1, HCV, KSHV, yellow fever virus, flavivirus or rhinovirus,
CC
     retroviral infections such as HIV-1, HIV-2, HTVL-3 and/or LAV, plasmodial
CC
CC
     infections associated with P.faciparum, P.vivax, P.ovale, P.malariae. It
CC
     is also useful for treating cancer, especially prostate cancer
XX
     Sequence 11 AA;
SQ
  Query Match
                          27.3%; Score 3; DB 3; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 7.9e+03;
  Matches
             3; Conservative
                               0; Mismatches
                                                    0; Indels
                                                                  0;
                                                                               0;
                                                                      Gaps
            1 ARK 3
Qу
              \pm 1.11
Db
            2 ARK 4
RESULT 64
AAB09423
ID
     AAB09423 standard; protein; 11 AA.
XX
AC
     AAB09423;
XX
DT
     06-AUG-2003 (revised)
```

```
DT
     30-AUG-2000 (first entry)
XX
DE
     Hepatitis GB virus protein sequence SEQ ID NO:550.
XX
KW
     Hepatitis GB virus; HGBV; diagnosis; therapeutic; immunogenic; infection;
K₩
     detection; characterisation; hepatitis.
XX
OS
     Hepatitis GB virus.
XX
PN
    US6051374-A.
XX
PD
     18-APR-2000.
XX
PF
     07-JUN-1995;
                    95US-00488445.
XX
PR
     14-FEB-1994;
                    94US-00196030.
PR
     13-MAY-1994;
                    94US-00242654:
PR
     29-JUL-1994;
                    94US-00283314.
     23-NOV-1994;
                    94US-00344185.
PR ·
PR
     23-NOV-1994;
                    94US-00344190.
PR
     30-JAN-1995;
                    95US-00377557.
XX
PA
     (ABBO ) ABBOTT LAB.
XX
PI
     Dawson GJ, Leary TP, Muerhoff AS, Pilot-Matias TJ, Buijk SL;
PΙ
     Mushahwar IK, Simons JN, Desai SM, Erker JC, Schlauder GG;
XX
DR
     WPI; 2000-338307/29.
XX
PT
     Detecting target hepatitis GB virus nucleic acid in a test sample
PT
     suspected of containing HGBV comprises reacting the test sample the HGBV
PT
     polynucleotide probe and detecting the complex that contains target HGBV.
XX
PS
     Example 18; Col 549-550; 369pp; English.
XX
CC
     The present invention describe a method for detecting target hepatitis GB
CC
     virus (HGBV) nucleic acid (THN) in a test sample (T) suspected of
CC
     containing HGBV. The method involves reacting (T) with a HGBV
CC
     polynucleotide probe (I) containing 15 contiguous nucleotides, and which
CC
     selectively hybridises to the HGBV genome or its full complement, and
     detecting the complex that contains THN, indicating the presence of
CC
CC
     target HGBV. The method is used for detecting target HGBV nucleic acid in
CC
     the test sample suspected of containing HGBV and for characterisation of
     newly ascertained etiological agent of non-A, non-B, non-C, non-D and non
CC
CC
     -E hepatitis causing agents collectively termed as hepatitis GB virus.
CC
     AAA55270 to AAA55489 and AAB08985 to AAB09480 represent nucleotide and
CC
     protein sequences used in the exemplification of the present invention.
CC
     (Updated on 06-AUG-2003 to correct OS field.)
XX
SQ
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 3; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 7.9e+03;
  Matches
             3; Conservative
                                0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
                                                                              0;
```

111

CC

```
RESULT 65
AAY81393
     AAY81393 standard; peptide; 11 AA.
XX
AC
     AAY81393;
XX
DT
     19-JUN-2000
                   (first entry)
XX
     PKC-alpha substrate peptide, used in detection of an SH-labelled oligo.
DE
XX
KW
     Thermophilic rolling circle amplification; TRCA; circular template;
     multimeric product; detection; single nucleotide polymorphism; SNP;
KW
KW
     disulphide bond; PKC-alpha substrate; protein kinase C; fluorescent.
XX
OS
     Synthetic.
XX
PN
     W0200009738-A1.
XX
PD
     24-FEB-2000.
XX
PF
     17-AUG-1999;
                    99WO-US018808.
XX
                    98US-0096830P.
PR
     17-AUG-1998;
PR
     30-SEP-1998;
                    98US-00102535.
     03-NOV-1998;
PR
                    98US-0106885P.
     03-NOV-1998;
                    98US-0106910P.
PR
XX
PA
     (PACB ) PACKARD BIOSCIENCE CO.
XX
     Woodward KL, Nallur GN, Taylor S;
PΙ
XX
     WPI; 2000-224363/19.
DR
XX
PT
     Analyzing a sample polynucleotide for detecting single nucleotide
PT
     polymorphism by rolling circle amplification.
XX
PS
     Example 29; Page 105; 126pp; English.
XX
```

The invention relates to methods for sensitively detecting the presence of a particular nucleic acid in a sample, e.g., determining whether a sequence of interest contains a particular genetic event such as a single nucleotide polymorphism (SNP). The sample nucleotide to be analysed is contacted with a single-stranded circular template comprising at least one copy of a nucleotide sequence complementary to the sample sequence and a type 2S restriction enzyme recognition site containing one or more modified bases. The circular template is combined with nucleotide triphosphates, a polymerase and optionally, a TRCA (thermophilic rolling circle amplification) primer to yield a single stranded multimer complementary in sequence to the circular template. A cleavage probe is then added, which anneals to the type 2S restriction recognition sites in the multimer and circular template, creating double stranded restriction sites. On treatment with the appropriate enzyme, the multimer is cleaved at the restriction sites, while the circular template is less sensitive

to cleavage, due to the presence of the modified base(s) in the

```
restriction site. The fragments produced can then be detected using an
CC
     array of capture probes immobilised on a matrix. The method is useful for
     analysing nucleotide sequences in order to detect a genetic event such as
CC
     a SNP. The method is sensitive and specific for detecting the target
CC
CC
     nucleotide sequence. The present sequence represents a fluorescent
     donor/quencher-labelled protein kinase C (PKC) alpha substrate used in an
CC
     exemplification of the invention in the detection of thiol (SH)-labelled
CC
CC
     oligonucleotides. The SH-labelled oligonucleotide is contacted with PKC-
CC
     alpha, and a disulphide bond is allowed to form between the
     oligonucleotide and the PKC-alpha. The activity of the PKC-alpha is then
CC
CC
     detected using this sequence
XX
SQ
     Sequence 11 AA;
  Query Match
                           27.3%; Score 3; DB 3; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 7.9e+03;
  Matches
             3; Conservative
                               0; Mismatches
                                                       Indels
                                                                  0; Gaps
                                                                               0;
            1 ARK 3
Qу
              | | | |
Db
            1 ARK 3
RESULT 66
AAY54479
ΙD
     AAY54479 standard; peptide; 11 AA.
XX
AC
     AAY54479;
XX
DT
     25-APR-2000 (first entry)
XX
DΕ
     Peptide used to treat infections, inflammation and tumours.
XX
KW
     Polycationic peptide; infection; inflammation; tumour; lactoferrin;
     lactoferricin; conalbumin; ovotransferrin; antimicrobial; synergist;
KW
     antibacterial; antiviral; antifungal; candidiasis; defensin; magainin;
KW
KW
     cecropin; protegrin; indolicidin analogue; histone;
KW
     acquired immune deficiency syndrome.
XX
OS
     Unidentified.
XX
PN
     W0200000214-A2.
XX
PD
     06-JAN-2000.
XX
PF
     28-JUN-1999;
                    99WO-EP004067.
XX
PR
     26-JUN-1998;
                    98NL-01009505.
PR
     09-OCT-1998;
                    98NL-01010284.
PR
     06-NOV-1998;
                    98EP-00203765.
XX
PA
     (NUTR-) NUTRICIA NV.
XX
ΡI
     Swart PJ, Kuipers ME, Meijer DKF, Hageman RJJ, Van Den Berg JJM;
XX
DR
     WPI; 2000-160640/14.
XX
```

CC

```
PT
     Composition containing cationic protein or peptide and buffer, used to
     treat or prevent infections, inflammation and tumors, e.g. Candida.
PT
XX
PS
     Claim 3; Page 43; 90pp; English.
XX
CC
     AAY54468-95 represent exemplary polycationic peptides which are used in
CC
     medicaments for treating and preventing infections (by bacteria, fungi,
CC
     viruses), inflammation and tumors. For peptides AAY54483-86, a peptide
CC
     comprising one of these sequences is used. Polycationic peptides may be
CC
     derived from human or bovine lactoferrin (preferred), lactoferricin, or
     conalbumin (ovotransferrin), as well as alpha or beta defensins,
CC
CC
     magainins, cecropins type A or B, protegrins, indolicidin analogues, and
CC
     polycations isolatable from insects and histones. The medicament
CC
     comprises a buffer which maintains a preselected pH in treated tissue.
CC
     The buffer provides a tissue pH at which growth of Candida is reduced.
CC
     The peptides show a synergistic effect when combined with known
CC
     antimicrobials, so allow a reduction in the dose of such compounds. The
CC
     medicaments are used to treat and/or prevent infections, inflammation and
CC
     tumors, or when used with separately administered antibacterial,
CC
     antiviral or antifungal agents, to provide a synergistic effect,
CC
     especially for treating candidiasis, e.g. in patients with acquired
CC
     immune deficiency syndrome
XX
SQ
    Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 3; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 7.9e+03;
             3; Conservative
                                 0; Mismatches
                                                   0; Indels
                                                                  0;
                                                                      Gaps
                                                                              0;
            3 KSR 5
Qу
              | | |
            1 KSR 3
Db
RESULT 67
AAB29416
     AAB29416 standard; peptide; 11 AA.
XX
AC
     AAB29416;
XX
DT
     09-FEB-2001 (first entry)
XX
DE
     Synthetic transduction domain, SEQ ID NO:3.
XX
KW
     Protein transduction domain; fusion molecule; therapeutic agent;
KW
     drug targetting; drug discovery; cell transduction; bioavailability;
KW
     vaccine; nervous system disorder; Alzheimer's disease;
KW
     Parkinson's disease; Huntington's disease; pre-senile dementia; epilepsy;
KW
     seizure; compulsive behaviour; meningitis; encephalitis; ischaemia;
KW
     spongiform encephalopathy; dyslexia; age-related memory loss;
     Lou Gehring's disease; viral infection; HIV; bacterial infection.
KW
XX
OS
     Synthetic.
XX
PN
     WO200062067-A1.
XX
PD
     19-OCT-2000.
```

```
XX
PF
     28-FEB-2000; 2000WO-US005097.
XX
PR
     28-FEB-1999;
                    99US-0122757P.
PR
     29-AUG-1999;
                    99US-0151291P.
XX
     (UNIW ) UNIV WASHINGTON.
PΑ
XX
PΙ
     Dowdy SF;
XX
DR
     WPI; 2000-647439/62.
XX
PT
     Fusion molecules comprising protein transduction domains and therapeutic
PT
     agents, useful for treating e.g. Alzheimer's and Parkinson's diseases,
PT
     dementia and epilepsy.
XX
PS
     Claim 36; Page 147; 191pp; English.
XX
CC
     The invention relates to a novel fusion molecule comprising at least one
     protein transduction domain (PTD) and at least one linked molecule, where
CC
     the linked molecule has therapeutic or prophylactic activity against a
CC
CC
     medical condition. The invention also relates to methods of drug
CC
     discovery in which the test compound is linked to a suitable transducing
CC
     protein and introduced to a cell; a method of killing resistant
CC
     microorganisms using a suitable fusion molecule; a mammal comprising a
CC
     covalently linked fusion molecule; and a mammal adapted for experimental
CC
     use in which at least one transduction molecule has been transduced into
CC
     essentially all the cells of the mammal. The fusion molecule is used to
CC
     deliver a therapeutic agent to a mammal, especially a human. The linked
CC
     molecule may be a vaccine, an anti-infective drug, a cardiovascular drug,
CC
     an antitumour drug, an analgesic, an antiinflammatory, a diagnostic
CC
     marker or a drug for the treatment or prevention of a central or
CC
     peripheral nervous system disorder. The central nervous system (CNS)
CC
     disorder is especially Alzheimer's disease, Parkinson's disease,
CC
     Huntington's disease, and also includes pre-senile dementia, epilepsy and
CC
     seizures, compulsive behaviour, meningitis (including viral and bacterial
CC
     meningitis), encephalitis, ischaemia, scrapie (or related spongiform
CC
     encephalopathies), dyslexia, age-related memory loss or Lou Gehring's
CC
     disease. Fusion molecules can also be used to kill virally infected
CC
     cells, especially those infected with HIV. The vaccines are used to treat
CC
     or prevent bacterial or viral infections. The methods are a highly
CC
     effective means for transducing a molecule into an entire mammal or into
CC
     specific cells, tissues, organs and systems within it. They also overcome
CC
     bioavailability problems that are associated with many therapeutic agents
     (e.g., large molecular size, hydrophobicity, hydrophilicity, biological
CC
CC
     resistance), by providing efficient transduction of the target cell. The
CC
     present sequence represents a specifically claimed protein transduction
CC
     domain
XX
SQ
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 3; Length 11;
  Best Local Similarity
                          100.0%;
                                  Pred. No. 7.9e+03;
  Matches
             3;
                Conservative
                               0; Mismatches
                                                   0;
                                                      Indels
                                                                     Gaps
                                                                              0;
```

```
RESULT 68
AAB26504
ID
     AAB26504 standard; peptide; 11 AA.
XX
АC
     AAB26504;
XX
DT
     11-JAN-2001 (first entry)
XX
DE
     Human IgE C epsilon4 domain epitope P8.
XX
KW
     IqE; C epsilon3; C epsilon4; histamine release inhibitor; vaccine;
KW
     antibody; epitope; mimotope; human.
XX
OS
     Homo sapiens.
XX
PN
     WO200050461-A1.
XX
PD
     31-AUG-2000.
XX
     22-FEB-2000; 2000WO-EP001456.
PF
XX
PR
     25-FEB-1999;
                    99GB-00004408.
                    99GB-00017144.
PR
     21-JUL-1999;
                    99GB-00018598.
PR
     07-AUG-1999;
                    99GB-00018599.
PR
     07-AUG-1999;
PR
     07-AUG-1999;
                    99GB-00018601.
                    99GB-00018604.
PR
     07-AUG-1999;
     07-AUG-1999;
                    99GB-00018606.
PR
PR
     29-OCT-1999;
                    99GB-00025618.
XX
PA
     (SMIK ) SMITHKLINE BEECHAM BIOLOGICALS.
PΑ
     (PEPT-) PEPTIDE THERAPEUTICS LTD.
XX
PI
                          Turnell WG, Van Mechelen MP;
     Friede M,
                Mason S,
ΡI
     Vinals Y De BassolsC;
XX
DR
     WPI; 2000-572074/53.
XX
PT
     Peptides comprising surface exposed epitopes or mimotopes derived from C-
PT
     epsilon-3 or C-epsilon-4 domains of IgE, useful for preventing or
PT
     treating allergy.
XX
PS
     4; Page 4; 76pp; English.
XX
CC
     The present invention relates epitopes and mimotopes of an isolated
CC
     surface exposed epitope of C epsilon3 or C epsilon4 domain of IqE. The
CC
     epitopes were identified by calculating the accessible surface of each
CC
     IgE residue. Mimotopes were designed to be similar to the epitopes. The
CC
     epitopes are useful in preparing medicaments for treating or preventing
CC
     allergies. The epitopes and mimotopes of the invention induce anti-IqE
CC
     antibodies which are capable of raising non-anaphylactic antibodies and
CC
     inhibiting histamine release. The present sequence is an IgE C epsilon4
CC
     domain epitope
XX
```

```
SQ
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 3; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 7.9e+03;
  Matches
             3; Conservative
                                0; Mismatches
                                                    0; Indels
                                                                      Gaps
                                                                               0;
            4 SRD 6
QУ
              \perp
Db
            6 SRD 8
RESULT 69
AAB08569
ID
     AAB08569 standard; peptide; 11 AA.
XX
AC
     AAB08569;
XX
DT
     20-DEC-2000
                 (first entry)
XX
DΕ
     Peptide identified from a databank of polypeptides and polynucleotides.
XX
KW
     Precursor peptide; polypeptide hormone; peptide identification.
XX
OS
     Unidentified.
XX
FΗ
     Kev
                     Location/Qualifiers
FT
     Modified-site
FT
                     /note= "hydrogen attached"
FT
     Modified-site
FT
                     /note= "amidated residue"
XX
PN
     WO200050636-A1.
XX
PD
     31-AUG-2000.
XX
     24-FEB-2000; 2000WO-FR000460.
PF
XX
PR
     25-FEB-1999;
                    99US-00257525.
XX
PΑ
     (SCRC ) SCRAS SOC CONSEILS RECH & APPL SCI.
     (CNRS ) CNRS CENT NAT RECH SCI.
ΡÀ
XX
     Camara Y FerrerJA, Thurieau C, Martinez J, Berge G, Goze C;
PΙ
XX
     WPI; 2000-572101/53.
DR
XX
     Identifying peptide with selected function, useful particularly for C-
PT
     amidated hormones, by screening database for combination of nucleic acid
PT
PT
     and amino acid sequences. --
XX
PS
     Disclosure; Page 21; 40pp; French.
XX
     The specification describes a method for identifying a peptide having a
CC
     particular function. The method comprises preparing a database of
CC
CC
     polynucleotides and polypeptides of unknown functions, screening the
```

database for a combination of nucleotides or amino acids indicative of

the peptide with a particular function, and identifying polynucleotides

CC

CC

```
precursor peptides with an amidated C-terminus, especially polypeptide
CC
     hormones, for studying physiologically active substances. The present
CC
     sequence represents a peptide which was identified using the method of
CC
CC
     the invention
XX
SO
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 3; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 7.9e+03;
             3; Conservative
                                0; Mismatches
                                                    0;
                                                        Indels
                                                                  0; Gaps
                                                                              0;
            6 DMT 8
Qу
              111
Db
            6 DMT 8
RESULT 70
AAB08606
     AAB08606 standard; peptide; 11 AA.
XX
AC
     AAB08606;
XX
DT
     20-DEC-2000 (first entry)
XX
DE
     Peptide identified from an origin of spliceosome associated protein 114.
XX
KW
     Precursor peptide; polypeptide hormone; peptide identification.
XX
OS
     Unidentified.
XX
FΗ
                     Location/Qualifiers
     Key
FT
     Modified-site
                     /note= "hydrogen attached"
FT
FT
     Modified-site
FT
                     /note= "amidated residue"
XX
PN
     WO200050636-A1.
XX
PD
     31-AUG-2000.
XX
PF
     24-FEB-2000; 2000WO-FR000460.
XX
PR
     25-FEB-1999;
                    99US-00257525.
XX
PΑ
     (SCRC ) SCRAS SOC CONSEILS RECH & APPL SCI.
PA
     (CNRS ) CNRS CENT NAT RECH SCI.
XX
PΙ
     Camara Y FerrerJA, Thurieau C, Martinez J,
                                                   Berge G,
XX
DR
     WPI; 2000-572101/53.
XX
PT
     Identifying peptide with selected function, useful particularly for C-
PT
     amidated hormones, by screening database for combination of nucleic acid
     and amino acid sequences.
PT
XX
PS
     Disclosure; Page 22; 40pp; French.
```

and proteins which contain the peptide. The method is used to identify

CC

```
XX
     The specification describes a method for identifying a peptide having a
CC
CC
     particular function. The method comprises preparing a database of
CC
     polynucleotides and polypeptides of unknown functions, screening the
     database for a combination of nucleotides or amino acids indicative of
CC
CC
     the peptide with a particular function, and identifying polynucleotides
     and proteins which contain the peptide. The method is used to identify
CC
     precursor peptides with an amidated C-terminus, especially polypeptide
CC
CC
     hormones, for studying physiologically active substances. The present
CC
     sequence represents a peptide which was identified using the method of
CC
     the invention
XX
SQ
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 3; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 7.9e+03;
             3; Conservative
                              0; Mismatches
                                                  0; Indels
                                                                  0; Gaps
                                                                              0;
            8 TAI 10
Qу
              IIII
            9 TAI 11
RESULT 71
AAG65304
ID
     AAG65304 standard; protein; 11 AA.
XX
AC
     AAG65304;
XX
DT
     30-NOV-2001 (first entry)
XX
DE
     Anti-IL-18 antibody 2E1 light chain CDR3 fragment.
XX
KW
     IL-18; interleukin-18; human; antibody; antirheumatic; cerebroprotective;
KW
     nootropic; neurological; antiinflammatory; antiparkinsonian; cardiant;
KW
     immunosuppressive; antidepressant; neuroleptic; hepatotropic; 2E1.
XX
OS
     Homo sapiens.
XX
PN
     WO200158956-A2.
XX
PD
     16-AUG-2001.
XX
PF
     09-FEB-2001; 2001WO-US004170.
XX
PR.
     10-FEB-2000; 2000US-0181608P.
XX
     (BADI ) BASF AG.
PΑ
XX
PI
     Ghayur T, Dixon RW, Roguska M, White M,
                                                 Labkovsky B,
                                                               Salfeld J;
PΙ
     Duncan AR, Brocklehurst SM, Mankovich J,
                                                 Shorrock CP,
                                                               Thompson JE;
PΙ
     Lennard SN;
XX
DR
     WPI; 2001-550020/61.
XX
PT
     Novel antibodies and compounds capable of binding to human interleukin-18
PT
     useful for treating, e.g., inflammatory disorders, neurological
```

```
XX
PS
     Claim 27; Page 38; 91pp; English.
XX
CC
     The invention provides isolated antibodies, or antigen-binding portions,
CC
     that are capable of binding to human interleukin-18 (IL-18). The
     antibodies may be used to inhibit human IL-18 activity in, and treat a
CC
CC
     disorder where IL-18 is detrimental in, a human subject suffering from,
CC
     inflammatory disorders (e.g., rheumatoid arthritis, Crohn's disease,
CC
     inflammatory bowel disease, and osteoarthritis), neurological disorders
CC
     (e.g., Huntington's chorea, Parkinson's disease, Alzheimer's disease, and
CC
     stroke), heart failure, myocardial infarction, autoimmune diseases such
CC
     as autoimmune hepatitis and autoimmune neutropaenia, and mental disorders
CC
     (e.g., depression and schizophrenia). Treatment with an anti-IL-18
CC
     antibody may occur before, concurrent, or after administration of a
     second agent selected from an antibody, or fragment, capable of binding
CC
CC
     human IL-12, methotrexate, anti-tumor necrosis factor, corticosteroids,
CC
     cyclosporin, rapamycin, FK506, and non-steroidal anti-inflammatory
CC
     agents. The present sequence represents an anti-IL-18 antibody 2E1 light
     chain CDR3 fragment
CC
XX
SQ
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 4; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 7.9e+03;
  Matches
             3; Conservative
                                 0; Mismatches
                                                       Indels
                                                                  0; Gaps
                                                                              0;
            4 SRD 6
Qу
              \perp
            2 SRD 4
Db
RESULT 72
AAB55201
     AAB55201 standard; peptide; 11 AA.
XX
AC
     AAB55201;
XX
DT
     05-MAR-2001
                 (first entry)
XX
DΕ
     Anti-RSV F1 DP178 region amino truncation peptide #8.
XX
KW
     Long lasting fusion peptide inhibitor; viral infection; antiviral;
KW
     antifusogenic; mobile blood component; measles virus; MeV; SIV;
KW
     simian immunodeficiency virus; human parainfluenza virus; HPIV; RSV;
KW
     human respiratory syncytial virus; human immunodeficiency virus; HIV.
XX
     Human respiratory syncytial virus.
OS
XX
     WO200069902-A1.
PN
XX
PD
     23-NOV-2000.
XX
PF
     17-MAY-2000; 2000WO-US013651.
XX
PR
     17-MAY-1999;
                    99US-0134406P.
PR
     10-SEP-1999;
                    99US-0153406P.
```

disorders, heart failure, myocardial infarction, and autoimmune diseases.

PT

```
XX
     (CONJ-) CONJUCHEM INC.
PΑ
XX
     Bridon DP, Dufresne RP,
                                Boudjellab N, Robitaille M, Milner PG;
PΙ
XX
     WPI; 2001-007496/01.
DR
XX
     A modified peptide and a reactive group which is reactive with amino
PT
PT
     groups, hydroxyl groups, or thiol groups on blood components to form
     stable covalent bonds useful for treatment of viral infections, e.g.
PT
PT
     human immunodeficiency virus.
XX
     Disclosure; Page 150; 211pp; English.
PS ·
XX
     The present invention describes a modified anti-viral peptide (I)
CC
     comprising a peptide that exhibits anti-viral activity and a reactive
CC
     group which is reactive with amino groups, hydroxyl groups, or thiol
CC
     groups on blood components to form stable covalent bonds. (I) has anti-
CC
CC
     viral and anti-fusogenic activities. (I) inhibits viral infection of
     cells by inhibiting cell-cell fusion or free virus infection or to reduce
CC
CC
     the level of membrane fusion events between two or more entities, e.g.,
     virus-cell or cell-cell, relative to the level of membrane fusion that
CC
     occurs in the absence of the peptide. (I) is useful in the treatment of patients who are suffering from viral infection, e.g. HIV, RSV, HPIV,
CC
CC
CC
     MeV, and SIV. (I) may be administered prophylactically to previously
CC
     uninfected individuals. This is useful in cases where an individual has
CC
     been subjected to a high risk of exposure to a virus. By bonding of long-
     lived components of the blood, such as immunoglobin, serum albumin, red
CC
CC
     blood cells and platelets the activity is extended for days to weeks.
CC
     This is due to improved stability in vivo and a reduced susceptibility to
     peptidase or protease degradation. This minimises the need for more
CC
     frequent, or even continual, administration of the peptides. AAB54784 to
CC
CC
     AAB55431 represent peptides used in the exemplification of the present
CC
     invention
XX
SQ
     Sequence 11 AA;
  Query Match
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            5 RKS 7
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AC
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XX
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DT
     12-SEP-2001
XX
DE
     Human immunodeficiency virus (HIV) TAT mutant peptide #2.
XX
KW
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gene alteration; TAT protein; mutein; Human immunodeficiency virus; HIV.
KW
XX
OS
     Human immunodeficiency virus.
     Synthetic.
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XX
     WO200149832-A2.
PN
XX
PD
     12-JUL-2001.
XX
PF
     05-JAN-2001; 2001WO-EP000060.
XX
PR
     07-JAN-2000; 2000EP-00100351.
     10-NOV-2000; 2000EP-00124595.
PR
XX
     (ARTE-) ARTEMIS PHARM GMBH.
PΑ
XX
PI
     Schwenk F;
XX
     WPI; 2001-441873/47.
DR
XX
PT
     Using site-specific DNA recombinase domain/protein transduction domain
     fusion proteins for inducing target gene alterations in organisms or cell
PT
PT
     cultures.
XX
PS
     Claim 5; Page 71; 85pp; English.
XX
CC
     The present invention relates to use of fusion proteins comprising a site
     -specific DNA recombinase domain e.g. Cre and a protein transduction
CC
     domain (PTD) e.g. the Human immunodeficiency virus (HIV) derived TAT
CC
     peptide, for preparing an agent for inducing target gene alterations in a
CC
CC
     living organism or cell culture. The present invention also provides a
     method for inducing gene alterations in living organisms using the fusion
CC
CC
     proteins of the invention. The present sequence is a HIV TAT mutant
CC
     peptide
XX
     Sequence 11 AA;
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  Best Local Similarity
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Qу
              2 ARK 4
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AC
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XX
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     27-SEP-2001 (first entry)
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DE
XX
KW
     ERA binding domain; Escherichia coli; GTPase; antimicrobial;
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KW
     antibacterial; antibiotic; pathogenesis; infection; vaccine;
KW
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XX
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OS
XX
     WO200153458-A2.
PN
XX
     26-JUL-2001.
PD
XX
PF
     17-JAN-2001; 2001WO-US001786.
XX
PR
     18-JAN-2000; 2000US-0176870P.
XX
     (SMIK ) SMITHKLINE BEECHAM CORP.
PA
     (SMIK ) SMITHKLINE BEECHAM PLC.
PΑ
XX
PI
                Pearce KH;
     Lupas AN,
XX
DR
     WPI; 2001-476108/51.
XX
PT
     New ERA binding domain polypeptides and polynucleotides encoding them,
PT
     useful as research reagents and materials for discovery of treatments and
PT
     diagnostics for diseases, or for genetic immunization.
XX
PS
     Claim 1; Page 36; 279pp; English.
XX
CC
     The present invention relates to ERA binding domain polypeptides
CC
     (AAG99559-AAG99989 and AAM00010-AAM00021). The era gene in Escherichia
CC
     coli codes for an essential GTPase protein able to autophosphorylate at
     serine and/or threonine residues. The protein has potential antimicrobial
CC
     and antibacterial activity and is useful in screening for antagonists,
CC
CC
     agonists and for compounds with antibiotic activity. The proteins are
CC
     also useful in determining their role in pathogenesis of infection,
CC
     dysfunction and disease and could be used as part of a vaccine and/or
CC
     peptide therapy
XX
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                          27.3%; Score 3; DB 4; Length 11;
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Drosophila; developmental biology; cell signalling; insecticide;
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     23-MAR-2001; 2001WO-US009231.
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     11-JUL-2000; 2000US-00614150.
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     (PEKE ) PE CORP NY.
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XX
PI
     Venter JC, Adams M, Li PWD, Myers EW;
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     WPI; 2001-656860/75.
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     N-PSDB; ABL03411.
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PT
     New isolated nucleic acid detection reagent for detecting 1000 or more
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     genes from Drosophila and for elucidating cell signaling and cell-cell
PT
     interactions.
XX
PS
     Disclosure; SEQ ID NO 4716; 21pp + Sequence Listing; English.
XX
CC
     The invention relates to an isolated nucleic acid detection reagent
CC
     capable of detecting 1000 or more genes from Drosophila. The invention is
     useful in developmental biology and in elucidating cell signalling and
CC
CC
     cell-cell interactions in higher eukaryotes for the development of
CC -
     insecticides, therapeutics and pharmaceutical drugs. The invention
CC
     discloses genomic DNA sequences (ABL16176-ABL30511), expressed DNA
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CC
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     printed specification, but was obtained in electronic format directly
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     from WIPO at ftp.wipo.int/pub/published pct sequences
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  Best Local Similarity
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              Db
            1 MTA 3
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Search completed: April 8, 2004, 15:40:13 Job time : 44.3077 secs

GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd.

OM protein - protein search, using sw model

Run on: April 8, 2004, 15:30:08; Search time 11.3077 Seconds

(without alignments)

50.221 Million cell updates/sec

Title: US-09-787-443A-22

Perfect score: 11

Sequence: 1 ARKSRDMTAIK 11

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Gapop 60.0 , Gapext 60.0

Searched: 389414 segs, 51625971 residues

Word size :

Total number of hits satisfying chosen parameters: 8542

Minimum DB seq length: 11 Maximum DB seq length: 11

Post-processing: Listing first 100 summaries

Database: Issued Patents AA:*

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SUMMARIES

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3	4	36.4	11	3	US-08-696-854B-3	Sequence 3, Appli
4	4	36.4	11	4	US-09-576-824A-547	Sequence 547, App
5	4	36.4	11	4	US-09-576-824A-548	Sequence 548, App
6	4	36.4	11	4	US-09-576-824A-549	Sequence 549, App
7	4	36.4	11	5	PCT-US91-08328-13	Sequence 13, Appl
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ALIGNMENTS

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RESULT 1
US-08-185-448-5
; Sequence 5, Application US/08185448
; Patent No. 5580747
  GENERAL INFORMATION:
    APPLICANT: SHULTZ, JOHN W.
    APPLICANT: WHITE, DOUGLAS H.
    TITLE OF INVENTION: NON-RADIOACTIVE KINASE,
    TITLE OF INVENTION: PHOSPHATASE AND PROTEASE ASSAY
    NUMBER OF SEQUENCES: 11
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: ANDRUS, SCEALES, STARKE & SAWALL
      STREET: 100 E. WISCONSIN AVENUE, SUITE 1100
      CITY: MILWAUKEE
      STATE: WISCONSIN
      COUNTRY: USA
      ZIP: 53202
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
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       SOFTWARE: PatentIn Release #1.0, Version
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       SOFTWARE: #1.25
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      APPLICATION NUMBER: US/08/185,448
      FILING DATE: 21-JAN-1994
      CLASSIFICATION: 435
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 07/791,928
;
      FILING DATE: 12-NOV-1991
    ATTORNEY/AGENT INFORMATION:
      NAME: SARA, CHARLES S
      REGISTRATION NUMBER: 30492
;
      REFERENCE/DOCKET NUMBER: F.3347-1
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (608) 255-2022
      TELEFAX: (608) 255-2182
      TELEX: 26832 ANDSTARK
   INFORMATION FOR SEQ ID NO: 5:
    SEQUENCE CHARACTERISTICS:
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      LENGTH: 11 amino acids
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      TOPOLOGY: linear
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             1111
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; Sequence 63, Application US/08747137
; Patent No. 5945033
   GENERAL INFORMATION:
    APPLICANT: YEN, Richard C.K.
    TITLE OF INVENTION: NON-CROSSLINKED PROTEIN PARTICLES FOR
    TITLE OF INVENTION: THERAPEUTIC AND DIAGNOSTIC USE
    NUMBER OF SEQUENCES: 184
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Townsend and Townsend and Crew LLP
      STREET: Two Embarcadero Center, 8th Floor
      CITY: San Francisco
      STATE: CA
      COUNTRY: USA
      ZIP: 94111
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      MEDIUM TYPE: Floppy disk
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       SOFTWARE: PatentIn Release #1.0, Version #1.30
     CURRENT APPLICATION DATA:
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      FILING DATE: 12-NOV-1996
      CLASSIFICATION: 424
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      APPLICATION NUMBER: US 08/212,546
       FILING DATE: 14-MAR-1994
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 08/069,831
      FILING DATE: 01-JUN-1993
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 07/959,560
      FILING DATE: 13-OCT-1992
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 07/641,720
      FILING DATE: 15-JAN-1991
    ATTORNEY/AGENT INFORMATION:
      NAME: Apple, Randolph T.
      REGISTRATION NUMBER: 36,429
      REFERENCE/DOCKET NUMBER: 016197-000840US
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: 415-576-0200
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      TOPOLOGY: not relevant
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Db
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US-08-696-854B-3
; Sequence 3, Application US/08696854B
; Patent No. 6017878
  GENERAL INFORMATION:
    APPLICANT: SARAGOVI, Uri H.
    APPLICANT: LeSAUTEUR, Lynne
    APPLICANT: CUELLO, Claudio A.
    TITLE OF INVENTION: NERVE GROWTH FACTOR STRUCTURAL ANALOGS
    TITLE OF INVENTION: AND THEIR USES
    NUMBER OF SEQUENCES: 23
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: KLAUBER & JACKSON
```

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STREET: Continental Plaza, 411 Hackensack Avenue
      CITY: Hackensack
      STATE: N.J.
      COUNTRY: U.S.A.
      ZIP: 07601
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
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    CURRENT APPLICATION DATA:
     APPLICATION NUMBER: US/08/696,854B
      FILING DATE: 07-AUG-1996
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    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: WO PCT/CA95/00059
      FILING DATE: 07-FEB-1995
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    PRIOR APPLICATION DATA:
;
     APPLICATION NUMBER: GB 9402331.4
      FILING DATE: 07-FEB-1994
    ATTORNEY/AGENT INFORMATION:
      NAME: JACKSON, David A.
;
      REGISTRATION NUMBER: 26,742
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (201) 487-5800
      TELEFAX: (201) 343-1684
;
      TELEX: 133521
  INFORMATION FOR SEQ ID NO: 3:
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     TOPOLOGY: linear
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Qу
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RESULT 4
US-09-576-824A-547
; Sequence 547, Application US/09576824A
; Patent No. 6667387
; GENERAL INFORMATION:
 APPLICANT: De Leys, Robert
  TITLE OF INVENTION: PROCESS FOR THE DETERMINATION OF PEPTIDES CORRESPONDING
; TITLE OF INVENTION: TO IMMUNOLOGICALLY IMPORTANT EPITOPES AND THEIR USE IN
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TITLE OF INVENTION: A PROCESS FOR DETERMINATION OF ANTIBODIES OF
   TITLE OF INVENTION: BIOTINYLATED PEPTIDES CORRESPONDING TO IMMUNOLOGICALLY
IMPORTANT
  TITLE OF INVENTION: EPITOPES, A PROCESS FOR PREPARING THEM AND COMPOSITIONS
   TITLE OF INVENTION: CONTAINING THEM
   FILE REFERENCE: 2752-11
   CURRENT APPLICATION NUMBER: US/09/576,824A
   CURRENT FILING DATE: 2000-05-23
   PRIOR APPLICATION NUMBER: 08/723,425
   PRIOR FILING DATE: 1996-09-30
   PRIOR APPLICATION NUMBER: 09/146,028
   PRIOR FILING DATE: 1993-11-22
  PRIOR APPLICATION NUMBER: PCT/EP93/00517
  PRIOR FILING DATE: 1993-03-08
  PRIOR APPLICATION NUMBER: EP 92400598.6
  PRIOR FILING DATE: 1992-03-06
  NUMBER OF SEQ ID NOS: 600
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 547
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Hepatitis C virus
   FEATURE:
   NAME/KEY: VARIANT
   LOCATION: (1)
   OTHER INFORMATION: Xaa = modified site : when present, represents an
   OTHER INFORMATION: amino acid, amino group, or chemically modified
   OTHER INFORMATION: amino terminus
   NAME/KEY: VARIANT
   LOCATION: (11)
   OTHER INFORMATION: Xaa = modified site : when present, represents an
    OTHER INFORMATION: amino acid, OH-group, NH2-group, or a linkage
   OTHER INFORMATION: involv-ing these two groups
US-09-576-824A-547
 Query Match
                         36.4%; Score 4; DB 4; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.4e+02;
          4; Conservative 0; Mismatches
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           2 RKSR 5
Qу
              1111
           7 RKSR 10
Db
RESULT 5
US-09-576-824A-548
; Sequence 548, Application US/09576824A
; Patent No. 6667387
; GENERAL INFORMATION:
 APPLICANT: De Leys, Robert
  TITLE OF INVENTION: PROCESS FOR THE DETERMINATION OF PEPTIDES CORRESPONDING
  TITLE OF INVENTION: TO IMMUNOLOGICALLY IMPORTANT EPITOPES AND THEIR USE IN
; TITLE OF INVENTION: A PROCESS FOR DETERMINATION OF ANTIBODIES OF
  TITLE OF INVENTION: BIOTINYLATED PEPTIDES CORRESPONDING TO IMMUNOLOGICALLY
IMPORTANT
  TITLE OF INVENTION: EPITOPES, A PROCESS FOR PREPARING THEM AND COMPOSITIONS
  TITLE OF INVENTION: CONTAINING THEM
```

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FILE REFERENCE: 2752-11
  CURRENT APPLICATION NUMBER: US/09/576,824A
  CURRENT FILING DATE: 2000-05-23
  PRIOR APPLICATION NUMBER: 08/723,425
  PRIOR FILING DATE: 1996-09-30
  PRIOR APPLICATION NUMBER: 09/146,028
  PRIOR FILING DATE: 1993-11-22
   PRIOR APPLICATION NUMBER: PCT/EP93/00517
   PRIOR FILING DATE: 1993-03-08
  PRIOR APPLICATION NUMBER: EP 92400598.6
 PRIOR FILING DATE: 1992-03-06
; NUMBER OF SEQ ID NOS: 600
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 548
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Hepatitis C virus
  FEATURE:
   NAME/KEY: VARIANT
   LOCATION: (1)
   OTHER INFORMATION: Xaa = modified site : when present, represents an
   OTHER INFORMATION: amino acid, amino group, or chemically modified
   OTHER INFORMATION: amino terminus
   NAME/KEY: VARIANT
   LOCATION: (11)
   OTHER INFORMATION: Xaa = modified site : when present, represents an
   OTHER INFORMATION: amino acid, OH-group, NH2-group, or a linkage
   OTHER INFORMATION: involv-ing these two groups
US-09-576-824A-548
  Query Match
                         36.4%; Score 4; DB 4; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.4e+02;
  Matches 4; Conservative 0; Mismatches 0; Indels 0; Gaps
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Qу
           2 RKSR 5
             1111
Db
           6 RKSR 9
RESULT 6
US-09-576-824A-549
; Sequence 549, Application US/09576824A
; Patent No. 6667387
; GENERAL INFORMATION:
; APPLICANT: De Leys, Robert
  TITLE OF INVENTION: PROCESS FOR THE DETERMINATION OF PEPTIDES CORRESPONDING
  TITLE OF INVENTION: TO IMMUNOLOGICALLY IMPORTANT EPITOPES AND THEIR USE IN
  TITLE OF INVENTION: A PROCESS FOR DETERMINATION OF ANTIBODIES OF
  TITLE OF INVENTION: BIOTINYLATED PEPTIDES CORRESPONDING TO IMMUNOLOGICALLY
IMPORTANT
  TITLE OF INVENTION: EPITOPES, A PROCESS FOR PREPARING THEM AND COMPOSITIONS
  TITLE OF INVENTION: CONTAINING THEM
  FILE REFERENCE: 2752-11
; CURRENT APPLICATION NUMBER: US/09/576,824A
; CURRENT FILING DATE: 2000-05-23
; PRIOR APPLICATION NUMBER: 08/723,425
; PRIOR FILING DATE: 1996-09-30
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PRIOR APPLICATION NUMBER: 09/146,028
  PRIOR FILING DATE: 1993-11-22
  PRIOR APPLICATION NUMBER: PCT/EP93/00517
   PRIOR FILING DATE: 1993-03-08
   PRIOR APPLICATION NUMBER: EP 92400598.6
   PRIOR FILING DATE: 1992-03-06
  NUMBER OF SEQ ID NOS: 600
  SOFTWARE: PatentIn Ver. 2.1
 SEQ ID NO 549
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Hepatitis C virus
   FEATURE:
   NAME/KEY: VARIANT
   LOCATION: (1)
   OTHER INFORMATION: Xaa = modified site : when present, represents an
   OTHER INFORMATION: amino acid, amino group, or chemically modified
   OTHER INFORMATION: amino terminus
   NAME/KEY: VARIANT
   LOCATION: (11)
   OTHER INFORMATION: Xaa = modified site : when present, represents an
   OTHER INFORMATION: amino acid, OH-group, NH2-group, or a linkage
   OTHER INFORMATION: involv-ing these two groups
US-09-576-824A-549
  Query Match
                          36.4%; Score 4; DB 4; Length 11;
  Best Local Similarity
                         100.0%; Pred. No. 1.4e+02;
 Matches
           4; Conservative
                              0; Mismatches
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           2 RKSR 5
Qу
              Db
            5 RKSR 8
RESULT 7
PCT-US91-08328-13
; Sequence 13, Application PC/TUS9108328
  GENERAL INFORMATION:
     APPLICANT: Ruggeri, Zaverio M.
    APPLICANT: Houghten, Richard A.
     TITLE OF INVENTION: PEPTIDES THAT INHIBIT PLATELET BINDING
     TITLE OF INVENTION: OF ADHESION MOLECULES
    NUMBER OF SEQUENCES: 47
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Eugene Moroz, MORGAN & FINNEGAN
       STREET: 345 Park Avenue
      CITY: New York
       STATE: New York
      COUNTRY: USA
       ZIP: 10154
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.25
     CURRENT APPLICATION DATA:
      APPLICATION NUMBER: PCT/US91/08328
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FILING DATE: 19911107
      CLASSIFICATION: 514
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 07/610,363
      FILING DATE: 07-NOV-1990
    ATTORNEY/AGENT INFORMATION:
      NAME: Moroz, Eugene
      REGISTRATION NUMBER: 25,237
      REFERENCE/DOCKET NUMBER: 1198 4079PC
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (212)758-4800
      TELEFAX: (212) 751-6849
      TELEX: 421792
  INFORMATION FOR SEQ ID NO: 13:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: AMINO ACID
      TOPOLOGY: unknown
    MOLECULE TYPE: peptide
    HYPOTHETICAL: NO
    ANTI-SENSE: NO
    FEATURE:
     NAME/KEY: Cross-links
      LOCATION: 6..>11
;
      OTHER INFORMATION: /note= "Sequence linked by
      OTHER INFORMATION: interchain amide bond at Lys residue with Glu
      OTHER INFORMATION: residue on Arg5-Glu-Ser-Arg-Gly-Asp-Val sequence"
    PUBLICATION INFORMATION:
     DOCUMENT NUMBER: US 4,683,291
      FILING DATE: 28-OCT-1985
      PUBLICATION DATE: 28-JUL-1987
    PUBLICATION INFORMATION:
      DOCUMENT NUMBER: US B1 4,683,291
      FILING DATE: 28-OCT-1985
    PUBLICATION DATE: 03-JUL-1990
PCT-US91-08328-13
 Query Match
                         36.4%; Score 4; DB 5; Length 11;
 Best Local Similarity 100.0%; Pred. No. 1.4e+02;
 Matches
          4; Conservative 0; Mismatches 0; Indels
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                                                                           0;
Qу
           2 RKSR 5
             ++++
Db
           5 RKSR 8
RESULT 8
US-07-851-941-12
; Sequence 12, Application US/07851941
; Patent No. 5428016
  GENERAL INFORMATION:
    APPLICANT: Mamoru TOMITA et al.
    TITLE OF INVENTION: Antimicrobial Peptide and an
    TITLE OF INVENTION: Antimicrobial Agent
    NUMBER OF SEQUENCES: 18
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Wenderoth, Lind & Ponack
```

```
STREET: 805 Fifteenth Street, N.W., #700
    CITY: Washington
    STATE: D.C.
    COUNTRY: U.S.A.
    ZIP: 20005
  COMPUTER READABLE FORM:
   MEDIUM TYPE: Diskette, 5.25 inch, 500 kb
    COMPUTER: IBM Compatible
   OPERATING SYSTEM: MS-DOS
    SOFTWARE: DisplayWrite
  CURRENT APPLICATION DATA:
   APPLICATION NUMBER: US/07/851,941
    FILING DATE: 19920313
   CLASSIFICATION: 530
  PRIOR APPLICATION DATA:
   APPLICATION NUMBER: 07/851,941
    FILING DATE: March 13, 1992
 ATTORNEY/AGENT INFORMATION:
   NAME: Warren M. Cheek, Jr.
   REGISTRATION NUMBER: 33,367
   REFERENCE/DOCKET NUMBER:
 TELECOMMUNICATION INFORMATION:
    TELEPHONE: 202-371-8850
    TELEFAX:
    TELEX:
INFORMATION FOR SEQ ID NO: 12:
 SEQUENCE CHARACTERISTICS:
   LENGTH: 11 amino acid residues
   TYPE: AMINO ACID
   STRANDEDNESS: single
   TOPOLOGY: linear
 MOLECULE TYPE: peptide
 HYPOTHETICAL:
 ANTI-SENSE:
 FRAGMENT TYPE:
 ORIGINAL SOURCE:
  ORGANISM:
  STRAIN:
   INDIVIDUAL ISOLATE:
  DEVELOPMENTAL STAGE:
   HAPLOTYPE:
   TISSUE TYPE:
   CELL TYPE:
   CELL LINE:
   ORGANELLE:
 IMMEDIATE SOURCE:
   LIBRARY:
   CLONE:
 POSITION IN GENOME:
   CHROMOSOME/SEGMENT:
   MAP POSITION:
   UNITS:
 FEATURE:
   NAME/KEY:
   LOCATION:
   IDENTIFICATION METHOD:
   OTHER INFORMATION:
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PUBLICATION INFORMATION:
      AUTHORS:
;
       TITLE:
;
       JOURNAL:
      VOLUME:
     ISSUE:
     PAGES:
     DATE:
      DOCUMENT NUMBER:
      FILING DATE:
      PUBLICATION DATE:
      RELEVANT RESIDUES IN SEQ ID NO:
US-07-851-941-12
  Query Match
                         27.3%; Score 3; DB 1; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.8e+03;
 Matches 3; Conservative 0; Mismatches 0; Indels
                                                               0; Gaps
                                                                           0;
           3 KSR 5
Qу
             | | |
           1 KSR 3
Db
RESULT 9
US-08-197-795-5
; Sequence 5, Application US/08197795
; Patent No. 5457182
; GENERAL INFORMATION:
    APPLICANT: Wiederrecht, Gregory J.
    APPLICANT: Sewell, Tonya J.
    TITLE OF INVENTION: FK-506 CYTOSOLIC BINDING PROTEIN
    NUMBER OF SEQUENCES: 21
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Merck & Co., Inc.
      STREET: 126 E. Lincoln Avenue
      CITY: Rahway
      STATE: New Jersey
      COUNTRY: USA
      ZIP: 07065
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/197,795
      FILING DATE:
      CLASSIFICATION: 530
    ATTORNEY/AGENT INFORMATION:
      NAME: Thies, J. Eric
      REGISTRATION NUMBER: 35,382
      REFERENCE/DOCKET NUMBER: 19181
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (908) 594-3904
      TELEFAX: (908) 594-4720
  INFORMATION FOR SEQ ID NO: 5:
    SEQUENCE CHARACTERISTICS:
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```
LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
    MOLECULE TYPE: protein
    HYPOTHETICAL: NO
    ANTI-SENSE: NO
US-08-197-795-5
  Query Match
                         27.3%; Score 3; DB 1; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.8e+03;
 Matches 3; Conservative 0; Mismatches 0; Indels
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           4 SRD 6
Qу
             2 SRD 4
Db
RESULT 10
US-08-431-539-10
; Sequence 10, Application US/08431539
; Patent No. 5580751
; GENERAL INFORMATION:
    APPLICANT: Buchardt, Ole
    APPLICANT: Breddam, Klaus
APPLICANT: Henriksen, Dennis
    TITLE OF INVENTION: Process for the Preparation of
    TITLE OF INVENTION: C-Terminally Amidated Peptides
    NUMBER OF SEQUENCES: 19
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Merchant & Gould
      STREET: 3100 No. 5580751west Center
      CITY: Minneapolis
      STATE: MN
      COUNTRY: USA
      ZIP: 55402
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/431,539
      FILING DATE:
      CLASSIFICATION: 435
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 08/039,306
      FILING DATE: 15-APR-1993
    ATTORNEY/AGENT INFORMATION:
      NAME: Nelson, Albin J.
      REGISTRATION NUMBER: 28,650
      REFERENCE/DOCKET NUMBER: 9663.8-US-WO
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 612-332-5300
      TELEFAX: 612-332-9081
  INFORMATION FOR SEQ ID NO: 10:
    SEQUENCE CHARACTERISTICS:
```

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LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-431-539-10
  Query Match
                         27.3%; Score 3; DB 1; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.8e+03;
  Matches
          3; Conservative 0; Mismatches 0; Indels
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                                                                           0;
           8 TAI 10
Qу
             Db
           3 TAI 5
RESULT 11
US-08-431-539-16
; Sequence 16, Application US/08431539
; Patent No. 5580751
; GENERAL INFORMATION:
    APPLICANT: Buchardt, Ole
    APPLICANT: Breddam, Klaus
    APPLICANT: Henriksen, Dennis
    TITLE OF INVENTION: Process for the Preparation of
    TITLE OF INVENTION: C-Terminally Amidated Peptides
    NUMBER OF SEQUENCES: 19
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Merchant & Gould
      STREET: 3100 No. 5580751west Center
      CITY: Minneapolis
      STATE: MN
      COUNTRY: USA
      ZIP: 55402
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/431,539
      FILING DATE:
      CLASSIFICATION: 435
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 08/039,306
      FILING DATE: 15-APR-1993
    ATTORNEY/AGENT INFORMATION:
      NAME: Nelson, Albin J.
      REGISTRATION NUMBER: 28,650
      REFERENCE/DOCKET NUMBER: 9663.8-US-WO
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 612-332-5300
      TELEFAX: 612-332-9081
   INFORMATION FOR SEQ ID NO:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
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STRANDEDNESS: single
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-431-539-16
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                         27.3%; Score 3; DB 1; Length 11;
 Best Local Similarity 100.0%; Pred. No. 1.8e+03;
 Matches 3; Conservative 0; Mismatches 0; Indels
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                                                                        0;
           8 TAI 10
Qу
            3 TAI 5
Db
RESULT 12
US-08-615-181-84
; Sequence 84, Application US/08615181
; Patent No. 5756666
  GENERAL INFORMATION:
    APPLICANT: MASAFUMI, TAKIGUCHI
    APPLICANT: MIWA, KIYOSHI
    TITLE OF INVENTION: PEPTIDES CAPABLE OF INDUCING IMMUNE
    TITLE OF INVENTION: RESPONSE TO HIV AND ANTI-AIDS AGENT FOR PREVENTING AND
    TITLE OF INVENTION: CURING AIDS
    NUMBER OF SEQUENCES: 115
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT,
      ADDRESSEE: P.C.
      STREET: 1755 S. JEFFERSON DAVIS HIGHWAY, SUITE 400
      CITY: ARLINGTON
      STATE: VA
      COUNTRY: USA
      ZIP: 22202
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/615,181
      FILING DATE: 04-APR-1996
      CLASSIFICATION: 424
    PRIOR APPLICATION DATA:
    APPLICATION NUMBER: PCT/JP94/01756
      FILING DATE: 19-OCT-1994
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: JP 261302/1993
      FILING DATE: 19-OCT-1993
    ATTORNEY/AGENT INFORMATION:
     NAME: OBLON, NORMAN F.
      REGISTRATION NUMBER: 24,618
      REFERENCE/DOCKET NUMBER: 10-796-0 PCT
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 703-413-3000
      TELEFAX: 703-413-2220
  INFORMATION FOR SEQ ID NO: 84:
    SEQUENCE CHARACTERISTICS:
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LENGTH: 11 amino acids
       TYPE: amino acid
       STRANDEDNESS: single
       TOPOLOGY: linear
     MOLECULE TYPE: peptide
     ORIGINAL SOURCE:
       ORGANISM: HUMAN IMMUNODEFICIENCY VIRUS
US-08-615-181-84
  Query Match
                          27.3%; Score 3; DB 1; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.8e+03;
           3; Conservative 0; Mismatches 0; Indels
                                                                  0; Gaps
                                                                              0:
            2 RKS 4
              111
            7 RKS 9
Db
RESULT 13
US-08-456-670B-28
; Sequence 28, Application US/08456670B
; Patent No. 5932415
   GENERAL INFORMATION:
    APPLICANT: SCHUBERT, PETER APPLICANT: NEUMANN, SIEGFRIED
;
    APPLICANT: PAWELZIK, MARTINA
    APPLICANT: LINXWEILER, WINFRIED
    APPLICANT: BURGER, CHRISTA
    APPLICANT: HOFMANN, GOTTFRIED
    APPLICANT: BUBERT, ANDREAS
    APPLICANT: GOEBEL, WERNER
    APPLICANT: KOHLER, STEFAN
    TITLE OF INVENTION: PROCESSES AND AGENTS FOR DETECTING TITLE OF INVENTION: LISTERIAS
    NUMBER OF SEQUENCES: 43
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: MILLEN, WHITE, ZELANO & BRANIGAN, P.C.
       STREET: 2200 CLARENDON BLVD., SUITE 1400
      CITY: ARLINGTON
       STATE: VIRGINIA
       COUNTRY: US
       ZIP: 22201
    COMPUTER READABLE FORM:
;
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
       OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/456,670B
       FILING DATE: 01-JUN-1995
      CLASSIFICATION: 435
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 08/412,227
       FILING DATE: 27-MAR-1995
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 08/075,248
    FILING DATE: 11-JUN-1993
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PRIOR APPLICATION DATA:
       APPLICATION NUMBER: DE 4239567.4
       FILING DATE: 25-NOV-1992
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: DE 4219111.4
       FILING DATE: 11-JUN-1992
    ATTORNEY/AGENT INFORMATION:
      NAME: HAMLET-KING, DIANA
       REGISTRATION NUMBER: 33,302
       REFERENCE/DOCKET NUMBER: MERCK 1694D1
    TELECOMMUNICATION INFORMATION:
       TELEPHONE: 703-243-6333
       TELEFAX: 703-243-6410
      TELEX: 64191
  INFORMATION FOR SEQ ID NO: 28:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
       TYPE: amino acid
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
    ORIGINAL SOURCE:
      ORGANISM: Listeria monocytogenes
       STRAIN: EGD
US-08-456-670B-28
 Query Match
                        27.3%; Score 3; DB 2; Length 11;
 Best Local Similarity 100.0%; Pred. No. 1.8e+03;
 Matches
          3; Conservative 0; Mismatches
                                               0; Indels
                                                                0; Gaps
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           9 AIK 11
Qу
             111
           2 AIK 4
Db
RESULT 14
US-08-350-260A-340
; Sequence 340, Application US/08350260A
; Patent No. 5962255
  GENERAL INFORMATION:
    APPLICANT: Winter, Gregory Paul
    APPLICANT: Griffiths, Andrew David
    APPLICANT: Williams, Samuel Cameron APPLICANT: Waterhouse, Peter
    APPLICANT: Nissim, Ahuva
    APPLICANT: Johnson, Kevin Stuart
    APPLICANT: Smith, Andrew John Hammond
    TITLE OF INVENTION: Methods for producing members of specific
    TITLE OF INVENTION: binding pairs
    NUMBER OF SEQUENCES: 602
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: David W. Clough
      STREET: Marshall, O'Toole, Gerstein, Murray & Borun
      STREET: 6300 Sears Tower, 233 South Wacker Drive
      CITY: Chicago
      STATE: Illinois
      COUNTRY: USA
      ZIP: 60606-6402
```

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COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
       OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.25 (EPO)
     CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/350,260A
      FILING DATE: 05-DEC-1994
      CLASSIFICATION: 435
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER: GB 9110549.4
       FILING DATE: 15-MAY-1991
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER: GB 9206318.9
      FILING DATE: 24-MAR-1992
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER: PCT/GB91/01134
      FILING DATE: 10-JUL-1991
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER: PCT/GB92/00883
      FILING DATE: 15-MAY-1992
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER: PCT/GB93/00605
      FILING DATE: 24-MAR-1993
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 08/150,002
       FILING DATE: 31-MAR-1994
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 08/307,619
      FILING DATE: 16-SEP-1994
    ATTORNEY/AGENT INFORMATION:
      NAME: Clough, David W
      REGISTRATION NUMBER: 36,107
      REFERENCE/DOCKET NUMBER: 28111/32372
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 312-474-6300
   INFORMATION FOR SEQ ID NO:
     SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
US-08-350-260A-340
  Query Match
                         27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.8e+03;
            3; Conservative 0; Mismatches 0; Indels
 Matches
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QУ
             +111
Db
           2 SRD 4
RESULT 15
US-08-350-260A-342
; Sequence 342, Application US/08350260A
; Patent No. 5962255
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GENERAL INFORMATION:
 APPLICANT: Winter, Gregory Paul
APPLICANT: Griffiths, Andrew David
  APPLICANT: Williams, Samuel Cameron
 APPLICANT: Waterhouse, Peter
 APPLICANT: Nissim, Ahuva
 APPLICANT: Johnson, Kevin Stuart
 APPLICANT: Smith, Andrew John Hammond
 TITLE OF INVENTION: Methods for producing members of specific TITLE OF INVENTION: binding pairs
 NUMBER OF SEQUENCES: 602
 CORRESPONDENCE ADDRESS:
  ADDRESSEE: David W. Clough
    STREET: Marshall, O'Toole, Gerstein, Murray & Borun
   STREET: 6300 Sears Tower, 233 South Wacker Drive
   CITY: Chicago
   STATE: Illinois
  COUNTRY: USA
   ZIP: 60606-6402
 COMPUTER READABLE FORM:
  MEDIUM TYPE: Floppy disk
   COMPUTER: IBM PC compatible
   OPERATING SYSTEM: PC-DOS/MS-DOS
   SOFTWARE: PatentIn Release #1.0, Version #1.25 (EPO)
  CURRENT APPLICATION DATA:
  APPLICATION NUMBER: US/08/350,260A
  FILING DATE: 05-DEC-1994
   CLASSIFICATION: 435
  PRIOR APPLICATION DATA:
   APPLICATION NUMBER: GB 9110549.4
    FILING DATE: 15-MAY-1991
  PRIOR APPLICATION DATA:
  APPLICATION NUMBER: GB 9206318.9
    FILING DATE: 24-MAR-1992
 PRIOR APPLICATION DATA:
  APPLICATION NUMBER: PCT/GB91/01134
   FILING DATE: 10-JUL-1991
  PRIOR APPLICATION DATA:
   APPLICATION NUMBER: PCT/GB92/00883
    FILING DATE: 15-MAY-1992
  PRIOR APPLICATION DATA:
   APPLICATION NUMBER: PCT/GB93/00605
    FILING DATE: 24-MAR-1993
  PRIOR APPLICATION DATA:
   APPLICATION NUMBER: US 08/150,002
    FILING DATE: 31-MAR-1994
  PRIOR APPLICATION DATA:
   APPLICATION NUMBER: US 08/307,619
    FILING DATE: 16-SEP-1994
 ATTORNEY/AGENT INFORMATION:
   NAME: Clough, David W
    REGISTRATION NUMBER: 36,107
    REFERENCE/DOCKET NUMBER: 28111/32372
  TELECOMMUNICATION INFORMATION:
    TELEPHONE: 312-474-6300
INFORMATION FOR SEQ ID NO: 342:
  SEQUENCE CHARACTERISTICS:
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LENGTH: 11 amino acids
       TYPE: amino acid
       STRANDEDNESS: single
       TOPOLOGY: linear
US-08-350-260A-342
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.8e+03;
  Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
           4 SRD 6
Qу
             - } | |
            2 SRD 4
^{\mathrm{Db}}
RESULT 16
US-08-350-260A-349
; Sequence 349, Application US/08350260A
; Patent No. 5962255
; GENERAL INFORMATION:
    APPLICANT: Winter, Gregory Paul
    APPLICANT: Griffiths, Andrew David
   APPLICANT: Williams, Samuel Cameron
    APPLICANT: Waterhouse, Peter
    APPLICANT: Nissim, Ahuva
APPLICANT: Johnson, Kevin Stuart
APPLICANT: Smith, Andrew John Hammond
    TITLE OF INVENTION: Methods for producing members of specific
    TITLE OF INVENTION: binding pairs
    NUMBER OF SEQUENCES: 602
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: David W. Clough
       STREET: Marshall, O'Toole, Gerstein, Murray & Borun
      STREET: 6300 Sears Tower, 233 South Wacker Drive
      CITY: Chicago
      STATE: Illinois
      COUNTRY: USA
      ZIP: 60606-6402
    COMPUTER READABLE FORM:
     MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25 (EPO)
    CURRENT APPLICATION DATA:
     APPLICATION NUMBER: US/08/350,260A
     FILING DATE: 05-DEC-1994
      CLASSIFICATION: 435
     PRIOR APPLICATION DATA:
;
     APPLICATION NUMBER: GB 9110549.4
      FILING DATE: 15-MAY-1991
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: GB 9206318.9
      FILING DATE: 24-MAR-1992
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: PCT/GB91/01134
;
     FILING DATE: 10-JUL-1991
     PRIOR APPLICATION DATA:
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APPLICATION NUMBER: PCT/GB92/00883
       FILING DATE: 15-MAY-1992
     PRIOR APPLICATION DATA:
       APPLICATION NUMBER: PCT/GB93/00605
       FILING DATE: 24-MAR-1993
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 08/150,002
       FILING DATE: 31-MAR-1994
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 08/307,619
       FILING DATE: 16-SEP-1994
     ATTORNEY/AGENT INFORMATION:
      NAME: Clough, David W
       REGISTRATION NUMBER: 36,107
      REFERENCE/DOCKET NUMBER: 28111/32372
     TELECOMMUNICATION INFORMATION:
      TELEPHONE: 312-474-6300
  INFORMATION FOR SEQ ID NO: 349:
     SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
       TYPE: amino acid
       STRANDEDNESS: single
       TOPOLOGY: linear
US-08-350-260A-349
  Query Match
                        27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.8e+03;
  Matches 3; Conservative 0; Mismatches 0; Indels
                                                               0; Gaps
            4 SRD 6
Qу
             2 SRD 4
RESULT 17
US-08-350-260A-375
; Sequence 375, Application US/08350260A
; Patent No. 5962255
  GENERAL INFORMATION:
    APPLICANT: Winter, Gregory Paul
    APPLICANT: Griffiths, Andrew David
    APPLICANT: Williams, Samuel Cameron APPLICANT: Waterhouse, Peter
    APPLICANT: Nissim, Ahuva
    APPLICANT: Johnson, Kevin Stuart
    APPLICANT: Smith, Andrew John Hammond
    TITLE OF INVENTION: Methods for producing members of specific
    TITLE OF INVENTION: binding pairs
    NUMBER OF SEQUENCES: 602
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: David W. Clough
      STREET: Marshall, O'Toole, Gerstein, Murray & Borun
      STREET: 6300 Sears Tower, 233 South Wacker Drive
      CITY: Chicago
      STATE: Illinois
      COUNTRY: USA
      ZIP: 60606-6402
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COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25 (EPO)
    CURRENT APPLICATION DATA:
     APPLICATION NUMBER: US/08/350,260A
      FILING DATE: 05-DEC-1994
      CLASSIFICATION: 435
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: GB 9110549.4
      FILING DATE: 15-MAY-1991
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: GB 9206318.9
      FILING DATE: 24-MAR-1992
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: PCT/GB91/01134
      FILING DATE: 10-JUL-1991
   PRIOR APPLICATION DATA:
     APPLICATION NUMBER: PCT/GB92/00883
     FILING DATE: 15-MAY-1992
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: PCT/GB93/00605
      FILING DATE: 24-MAR-1993
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 08/150,002
      FILING DATE: 31-MAR-1994
    PRIOR APPLICATION DATA:
    APPLICATION NUMBER: US 08/307,619
     FILING DATE: 16-SEP-1994
    ATTORNEY/AGENT INFORMATION:
      NAME: Clough, David W
      REGISTRATION NUMBER: 36,107
      REFERENCE/DOCKET NUMBER: 28111/32372
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 312-474-6300
  INFORMATION FOR SEQ ID NO:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
US-08-350-260A-375
  Query Match
                        27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.8e+03;
           3; Conservative 0; Mismatches 0; Indels
                                                               0; Gaps
                                                                          0;
           4 SRD 6
Qy
             IIII
Db
           2 SRD 4
RESULT 18
US-08-350-260A-424
; Sequence 424, Application US/08350260A
; Patent No. 5962255
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GENERAL INFORMATION:
  APPLICANT: Winter, Gregory Paul
  APPLICANT: Griffiths, Andrew David
  APPLICANT: Williams, Samuel Cameron
  APPLICANT: Waterhouse, Peter
  APPLICANT: Nissim, Ahuva
  APPLICANT: Johnson, Kevin Stuart
  APPLICANT: Smith, Andrew John Hammond
  TITLE OF INVENTION: Methods for producing members of specific TITLE OF INVENTION: binding pairs
  NUMBER OF SEQUENCES:
  CORRESPONDENCE ADDRESS:
    ADDRESSEE: David W. Clough
    STREET: Marshall, O'Toole, Gerstein, Murray & Borun
    STREET: 6300 Sears Tower, 233 South Wacker Drive
    CITY: Chicago
    STATE: Illinois
    COUNTRY: USA
    ZIP: 60606-6402
  COMPUTER READABLE FORM:
    MEDIUM TYPE: Floppy disk
    COMPUTER: IBM PC compatible
    OPERATING SYSTEM: PC-DOS/MS-DOS
    SOFTWARE: Patentin Release #1.0, Version #1.25 (EPO)
  CURRENT APPLICATION DATA:
    APPLICATION NUMBER: US/08/350,260A
    FILING DATE: 05-DEC-1994
    CLASSIFICATION: 435
  PRIOR APPLICATION DATA:
    APPLICATION NUMBER: GB 9110549.4
    FILING DATE: 15-MAY-1991
  PRIOR APPLICATION DATA:
    APPLICATION NUMBER: GB 9206318.9
    FILING DATE: 24-MAR-1992
  PRIOR APPLICATION DATA:
    APPLICATION NUMBER: PCT/GB91/01134
    FILING DATE: 10-JUL-1991
  PRIOR APPLICATION DATA:
    APPLICATION NUMBER: PCT/GB92/00883
    FILING DATE: 15-MAY-1992
  PRIOR APPLICATION DATA:
    APPLICATION NUMBER: PCT/GB93/00605
    FILING DATE: 24-MAR-1993
  PRIOR APPLICATION DATA:
    APPLICATION NUMBER: US 08/150,002
    FILING DATE: 31-MAR-1994
  PRIOR APPLICATION DATA:
    APPLICATION NUMBER: US 08/307,619
    FILING DATE: 16-SEP-1994
 ATTORNEY/AGENT INFORMATION:
   NAME: Clough, David W
   REGISTRATION NUMBER: 36,107
   REFERENCE/DOCKET NUMBER: 28111/32372
  TELECOMMUNICATION INFORMATION:
    TELEPHONE: 312-474-6300
INFORMATION FOR SEQ ID NO: 424:
  SEQUENCE CHARACTERISTICS:
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LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
US-08-350-260A-424
  Query Match
                         27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.8e+03;
 Matches
            3; Conservative
                             0; Mismatches 0; Indels 0; Gaps
                                                                           0;
           4 SRD 6
Qу
             2 SRD 4
RESULT 19
US-08-350-260A-427
; Sequence 427, Application US/08350260A
; Patent No. 5962255
  GENERAL INFORMATION:
    APPLICANT: Winter, Gregory Paul
    APPLICANT: Griffiths, Andrew David
    APPLICANT: Williams, Samuel Cameron
    APPLICANT: Waterhouse, Peter
    APPLICANT: Nissim, Ahuva
    APPLICANT: Johnson, Kevin Stuart
    APPLICANT: Smith, Andrew John Hammond
    TITLE OF INVENTION: Methods for producing members of specific
    TITLE OF INVENTION: binding pairs
    NUMBER OF SEQUENCES: 602
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: David W. Clough
      STREET: Marshall, O'Toole, Gerstein, Murray & Borun
      STREET: 6300 Sears Tower, 233 South Wacker Drive
      CITY: Chicago
     STATE: Illinois
      COUNTRY: USA
      ZIP: 60606-6402
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25 (EPO)
    CURRENT APPLICATION DATA:
     APPLICATION NUMBER: US/08/350,260A
      FILING DATE: 05-DEC-1994
      CLASSIFICATION: 435
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: GB 9110549.4
      FILING DATE: 15-MAY-1991
    PRIOR APPLICATION DATA:
     APPLICATION NUMBER: GB 9206318.9
      FILING DATE: 24-MAR-1992
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: PCT/GB91/01134
      FILING DATE: 10-JUL-1991
     PRIOR APPLICATION DATA:
```

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APPLICATION NUMBER: PCT/GB92/00883
       FILING DATE: 15-MAY-1992
;
     PRIOR APPLICATION DATA:
       APPLICATION NUMBER: PCT/GB93/00605
       FILING DATE: 24-MAR-1993
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 08/150,002
       FILING DATE: 31-MAR-1994
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 08/307,619
       FILING DATE: 16-SEP-1994
    ATTORNEY/AGENT INFORMATION:
      NAME: Clough, David W
       REGISTRATION NUMBER: 36,107
      REFERENCE/DOCKET NUMBER: 28111/32372
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 312-474-6300
;
   INFORMATION FOR SEQ ID NO: 427:
;
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
       STRANDEDNESS: single
       TOPOLOGY: linear
US-08-350-260A-427
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.8e+03;
                                                                  0; Gaps
 Matches 3; Conservative 0; Mismatches 0; Indels
                                                                              0;
           4 SRD 6
Qу
             -1.11
Db
            2 SRD 4
RESULT 20
US-08-350-260A-430
; Sequence 430, Application US/08350260A
; Patent No. 5962255
  GENERAL INFORMATION:
    APPLICANT: Winter, Gregory Paul
    APPLICANT: Griffiths, Andrew David
    APPLICANT: Williams, Samuel Cameron
APPLICANT: Waterhouse, Peter
APPLICANT: Nissim, Ahuva
    APPLICANT: Johnson, Kevin Stuart
    APPLICANT: Smith, Andrew John Hammond
    TITLE OF INVENTION: Methods for producing members of specific
    TITLE OF INVENTION: binding pairs
    NUMBER OF SEQUENCES: 602
    CORRESPONDENCE ADDRESS:
       ADDRESSEE: David W. Clough
;
       STREET: Marshall, O'Toole, Gerstein, Murray & Borun
      STREET: 6300 Sears Tower, 233 South Wacker Drive
      CITY: Chicago
      STATE: Illinois
      COUNTRY: USA
      ZIP: 60606-6402
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COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25 (EPO)
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/350,260A
      FILING DATE: 05-DEC-1994
      CLASSIFICATION: 435
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: GB 9110549.4
      FILING DATE: 15-MAY-1991
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: GB 9206318.9
      FILING DATE: 24-MAR-1992
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: PCT/GB91/01134
      FILING DATE: 10-JUL-1991
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: PCT/GB92/00883
      FILING DATE: 15-MAY-1992
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: PCT/GB93/00605
      FILING DATE: 24-MAR-1993
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 08/150,002
      FILING DATE: 31-MAR-1994
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 08/307,619
      FILING DATE: 16-SEP-1994
    ATTORNEY/AGENT INFORMATION:
      NAME: Clough, David W
      REGISTRATION NUMBER: 36,107
      REFERENCE/DOCKET NUMBER: 28111/32372
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 312-474-6300
  INFORMATION FOR SEQ ID NO: 430:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
US-08-350-260A-430
                         27.3%; Score 3; DB 2; Length 11;
  Query Match
 Best Local Similarity 100.0%; Pred. No. 1.8e+03;
 Matches 3; Conservative 0; Mismatches 0; Indels
                                                              0; Gaps
                                                                           0;
           4 SRD 6
Qу
             -111
Db
           2 SRD 4
RESULT 21
US-08-350-260A-516
; Sequence 516, Application US/08350260A
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; Patent No. 5962255

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GENERAL INFORMATION:
 APPLICANT: Winter, Gregory Paul
 APPLICANT: Griffiths, Andrew David
 APPLICANT: Williams, Samuel Cameron
 APPLICANT: Waterhouse, Peter
 APPLICANT: Nissim, Ahuva
 APPLICANT: Johnson, Kevin Stuart
 APPLICANT: Smith, Andrew John Hammond
 TITLE OF INVENTION: Methods for producing members of specific
 TITLE OF INVENTION: binding pairs
 NUMBER OF SEQUENCES:
 CORRESPONDENCE ADDRESS:
   ADDRESSEE: David W. Clough
   STREET: Marshall, O'Toole, Gerstein, Murray & Borun
   STREET: 6300 Sears Tower, 233 South Wacker Drive
   CITY: Chicago
   STATE: Illinois
   COUNTRY: USA
   ZIP: 60606-6402
 COMPUTER READABLE FORM:
   MEDIUM TYPE: Floppy disk
   COMPUTER: IBM PC compatible
   OPERATING SYSTEM: PC-DOS/MS-DOS
   SOFTWARE: PatentIn Release #1.0, Version #1.25 (EPO)
 CURRENT APPLICATION DATA:
   APPLICATION NUMBER: US/08/350,260A
   FILING DATE: 05-DEC-1994
   CLASSIFICATION: 435
 PRIOR APPLICATION DATA:
   APPLICATION NUMBER: GB 9110549.4
   FILING DATE: 15-MAY-1991
 PRIOR APPLICATION DATA:
   APPLICATION NUMBER: GB 9206318.9
   FILING DATE: 24-MAR-1992
 PRIOR APPLICATION DATA:
   APPLICATION NUMBER: PCT/GB91/01134
   FILING DATE: 10-JUL-1991
 PRIOR APPLICATION DATA:
   APPLICATION NUMBER: PCT/GB92/00883
   FILING DATE: 15-MAY-1992
 PRIOR APPLICATION DATA:
   APPLICATION NUMBER: PCT/GB93/00605
   FILING DATE: 24-MAR-1993
 PRIOR APPLICATION DATA:
   APPLICATION NUMBER: US 08/150,002
   FILING DATE: 31-MAR-1994
 PRIOR APPLICATION DATA:
   APPLICATION NUMBER: US 08/307,619
   FILING DATE: 16-SEP-1994
 ATTORNEY/AGENT INFORMATION:
   NAME: Clough, David W
   REGISTRATION NUMBER: 36,107
   REFERENCE/DOCKET NUMBER: 28111/32372
 TELECOMMUNICATION INFORMATION:
   TELEPHONE: 312-474-6300
INFORMATION FOR SEQ ID NO: 516:
 SEQUENCE CHARACTERISTICS:
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LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
US-08-350-260A-516
  Query Match
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  Best Local Similarity 100.0%; Pred. No. 1.8e+03;
            3; Conservative
                             0; Mismatches
                                               0; Indels 0; Gaps
                                                                           0;
           4 SRD 6
Qу
             -111
           2 SRD 4
RESULT 22
US-08-350-260A-522
; Sequence 522, Application US/08350260A
; Patent No. 5962255
  GENERAL INFORMATION:
    APPLICANT: Winter, Gregory Paul
    APPLICANT: Griffiths, Andrew David
    APPLICANT: Williams, Samuel Cameron
    APPLICANT: Waterhouse, Peter
    APPLICANT: Nissim, Ahuva
    APPLICANT: Johnson, Kevin Stuart
    APPLICANT: Smith, Andrew John Hammond
    TITLE OF INVENTION: Methods for producing members of specific
    TITLE OF INVENTION: binding pairs
    NUMBER OF SEQUENCES: 602
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: David W. Clough
      STREET: Marshall, O'Toole, Gerstein, Murray & Borun
      STREET: 6300 Sears Tower, 233 South Wacker Drive
      CITY: Chicago
      STATE: Illinois
      COUNTRY: USA
      ZIP: 60606-6402
   COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25 (EPO)
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/350,260A
      FILING DATE: 05-DEC-1994
      CLASSIFICATION: 435
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: GB 9110549.4
      FILING DATE: 15-MAY-1991
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: GB 9206318.9
      FILING DATE: 24-MAR-1992
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: PCT/GB91/01134
      FILING DATE: 10-JUL-1991
    PRIOR APPLICATION DATA:
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APPLICATION NUMBER: PCT/GB92/00883
       FILING DATE: 15-MAY-1992
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER: PCT/GB93/00605
      FILING DATE: 24-MAR-1993
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 08/150,002
       FILING DATE: 31-MAR-1994
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 08/307,619
      FILING DATE: 16-SEP-1994
    ATTORNEY/AGENT INFORMATION:
      NAME: Clough, David W
       REGISTRATION NUMBER: 36,107
      REFERENCE/DOCKET NUMBER: 28111/32372
     TELECOMMUNICATION INFORMATION:
      TELEPHONE: 312-474-6300
   INFORMATION FOR SEQ ID NO: 522:
     SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
       TYPE: amino acid
       STRANDEDNESS: single
      TOPOLOGY: linear
US-08-350-260A-522
                        27.3%; Score 3; DB 2; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 1.8e+03;
                                                              0; Gaps
           3; Conservative 0; Mismatches 0; Indels
                                                                             0;
           4 SRD 6
Qу
             -111
Db
            2 SRD 4
RESULT 23
US-08-751-767A-29
; Sequence 29, Application US/08751767A
; Patent No. 5994104
  GENERAL INFORMATION:
     APPLICANT: ANDERSON, ROBERT J.
    APPLICANT: GRANT, HUGH
APPLICANT: MACDONALD, IAN D.
    TITLE OF INVENTION: INTERLUKIN-12 FUSION PROTEIN
    NUMBER OF SEQUENCES: 80
     CORRESPONDENCE ADDRESS:
       ADDRESSEE: NIXON & VANDERHYE P.C.
       STREET: 1100 NORTH GLEBE ROAD
       CITY: ARLINGTON
       STATE: VA
       COUNTRY: USA
       ZIP: 22201
     COMPUTER READABLE FORM:
       MEDIUM TYPE: Floppy disk
       COMPUTER: IBM PC compatible
       OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.30
     CURRENT APPLICATION DATA:
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APPLICATION NUMBER: US/08/751,767A
       FILING DATE: 08-NOV-1996
       CLASSIFICATION:
                       536
    ATTORNEY/AGENT INFORMATION:
      NAME:
             SADOFF, B.J.
       REGISTRATION NUMBER: 36,663
       REFERENCE/DOCKET NUMBER: 117-221
    TELECOMMUNICATION INFORMATION:
       TELEPHONE: 7038164091
       TELEFAX: 7038164100
   INFORMATION FOR SEQ ID NO: 29:
    SEQUENCE CHARACTERISTICS:
       LENGTH: 11 amino acids
       TYPE: amino acid
       TOPOLOGY: linear
    MOLECULE TYPE: protein
US-08-751-767A-29
                         27.3%; Score 3; DB 2; Length 11;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 1.8e+03;
            3; Conservative
                              0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
                                                                             0;
           2 RKS 4
Qу
              +111
           2 RKS 4
Db
RESULT 24
US-09-115-209-74
; Sequence 74, Application US/09115209
; Patent No. 5998375
; GENERAL INFORMATION:
  APPLICANT: Thogersen, Henning
; APPLICANT: Madsen, Kjeld
; APPLICANT: Olsen, Uffe B.
; APPLICANT: Johansen, Nils L.
  APPLICANT: Scheideler, Mark
  TITLE OF INVENTION: No. 5998375iceptin Analogues
  FILE REFERENCE: 5285.200-US
  CURRENT APPLICATION NUMBER: US/09/115,209
  CURRENT FILING DATE: 1998-07-14
   EARLIER APPLICATION NUMBER: 0867/97
  EARLIER FILING DATE: 1997-07-15
  EARLIER APPLICATION NUMBER: 60/052,862
   EARLIER FILING DATE: 1997-07-17
  NUMBER OF SEQ ID NOS: 76
  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 74
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Human
    FEATURE:
    OTHER INFORMATION: Xaa at position 10 is Orn
US-09-115-209-74
  Query Match
                         27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.8e+03;
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3; Conservative 0; Mismatches 0; Indels 0; Gaps
                                                                            0;
 Matches
           1 ARK 3
Qy
             -111
Db
           7 ARK 9
RESULT 25
US-08-817-926-6
; Sequence 6, Application US/08817926
; Patent No. 6001590
   GENERAL INFORMATION:
     APPLICANT: Komeda, Toshihiro
     APPLICANT: Suda, Hisako
     APPLICANT: Tamai, Yukio
    APPLICANT: Iwamatsu, Akihiro
    APPLICANT: Kato, No. 6001590uo
     APPLICANT: Sakai, Yasuyoshi
     TITLE OF INVENTION: PROMOTER/TERMINATOR FOR CANDIDA BOIDINII
     TITLE OF INVENTION: FORMATE DEHYDROGENASE GENE
    NUMBER OF SEQUENCES: 51
     CORRESPONDENCE ADDRESS:
      ADDRESSEE: Foley & Lardner
       STREET: 3000 K Street, N.W., Suite 500
      CITY: Washington
      STATE: D.C.
      COUNTRY: USA
       ZIP: 20007-5109
     COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
       COMPUTER: IBM PC compatible
       OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.30
     CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/817,926
       FILING DATE: 09-MAY-1997
       CLASSIFICATION: 435
     PRIOR APPLICATION DATA:
       APPLICATION NUMBER: PCT/JP96/02597
       FILING DATE: 12-SEP-1996
     PRIOR APPLICATION DATA:
       APPLICATION NUMBER: JP 234133/1995
       FILING DATE: 12-SEP-1995
     PRIOR APPLICATION DATA:
       APPLICATION NUMBER: JP 42536/1996
       FILING DATE: 29-FEB-1996
     ATTORNEY/AGENT INFORMATION:
       NAME: Bent, Stephen A.
       REGISTRATION NUMBER: 29,768
       REFERENCE/DOCKET NUMBER: 081356/0112
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: (202) 672-5300
       TELEFAX: (202)672-5399
       TELEX: 904136
   INFORMATION FOR SEQ ID NO:
     SEQUENCE CHARACTERISTICS:
       LENGTH: 11 amino acids
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STRANDEDNESS:
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-817-926-6
  Query Match
                         27.3%; Score 3; DB 3; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.8e+03;
            3; Conservative
                              0; Mismatches
                                                  0; Indels
                                                                            0;
                                                                0; Gaps
           5 RDM 7
Qу
             -111
Db
           6 RDM 8
RESULT 26
US-08-746-160-51
; Sequence 51, Application US/08746160
; Patent No. 6010876
  GENERAL INFORMATION:
    APPLICANT: Lehrer, Robert I.
    APPLICANT: Harwig, Sylvia L.
    APPLICANT: Zhao, Chengquan
    APPLICANT: Lee, In-Hee
    TITLE OF INVENTION: CLAVANINS
    NUMBER OF SEQUENCES: 51
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: MORRISON & FOERSTER
      STREET: 2000 Pennsylvania Avenue, NW, suite 5500
      CITY: Washington
      STATE: DC
      COUNTRY: USA
      ZIP: 20006-1888
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Diskette
      COMPUTER: IBM Compatible
      OPERATING SYSTEM: DOS
      SOFTWARE: FastSEQ for Windows Version 2.0
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/746,160
      FILING DATE: 06-NOV-1996
      CLASSIFICATION: 530
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER:
      FILING DATE:
    ATTORNEY/AGENT INFORMATION:
      NAME: Murashige, Kate H
      REGISTRATION NUMBER: 29,959
      REFERENCE/DOCKET NUMBER: 22000-20563.00
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 202-887-1500
      TELEFAX: 202-822-0168
      TELEX:
  INFORMATION FOR SEQ ID NO:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
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TYPE: amino acid

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STRANDEDNESS: single
       TOPOLOGY: linear
 US-08-746-160-51
  Query Match
                          27.3%; Score 3; DB 3; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.8e+03;
  Matches
           3; Conservative 0; Mismatches
                                               0; Indels
                                                              0; Gaps
 Qу
        2 RKS 4
             111
            5 RKS 7
 Db
 RESULT 27
US-08-810-324-46
 ; Sequence 46, Application US/08810324C
 ; Patent No. 6040293
 ; GENERAL INFORMATION:
 ; APPLICANT: LEHRER, Robert I
 ; APPLICANT: ZHAO, Chengguan
 ; APPLICANT: LEE, In-Hee
 ; APPLICANT: HARWIG, Sylvia L.
 ; TITLE OF INVENTION: CLAVANINS
   FILE REFERENCE: 22000-20563.20
   CURRENT APPLICATION NUMBER: US/08/810,324C
   CURRENT FILING DATE: 1997-02-28
 ; EARLIER APPLICATION NUMBER: 08/746,160
 ; EARLIER FILING DATE: 1996-11-06
; NUMBER OF SEQ ID NOS: 52
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 46
    LENGTH: 11
    TYPE: PRT
    ORGANISM: Styela clava
US-08-810-324-46
. Query Match
                         27.3%; Score 3; DB 3; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.8e+03;
  Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps
                                                                         0;
            2 RKS 4
Qу
              5 RKS 7
RESULT 28
US-08-679-006-16
; Sequence 16, Application US/08679006
; Patent No. 6150500
  GENERAL INFORMATION:
     APPLICANT: Salerno, John C.
     TITLE OF INVENTION: APPLICATIONS FOR REGULATORY REGION OF
     TITLE OF INVENTION: NOS ISOFORMS
     NUMBER OF SEQUENCES: 35
     CORRESPONDENCE ADDRESS:
      ADDRESSEE: Hamilton, Brook, Smith & Reynolds, P.C.
       STREET: Two Militia Drive
```

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CITY: Lexington
       STATE: Massachusetts
       COUNTRY: USA
       ZIP: 02173
     COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.30
     CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/679,006
       FILING DATE: 12-JUL-1996
      CLASSIFICATION: 514
    ATTORNEY/AGENT INFORMATION:
      NAME: Brook, David E.
      REGISTRATION NUMBER: 22,592
      REFERENCE/DOCKET NUMBER: JCS96-01
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (617) 861-6240
      TELEFAX: (617) 861-9540
   INFORMATION FOR SEQ ID NO: 16:
     SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS:
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-679-006-16
  Query Match
                         27.3%; Score 3; DB 3; Length 11;
                         100.0%; Pred. No. 1.8e+03;
  Best Local Similarity
 Matches
            3; Conservative 0; Mismatches
                                                0;
                                                      Indels
                                                                0; Gaps
           2 RKS 4
Qу
             Db
           4 RKS 6
RESULT 29
US-09-183-217-9
; Sequence 9, Application US/09183217A
; Patent No. 6153194
; GENERAL INFORMATION:
  APPLICANT: Skare, Jonathan T.
  APPLICANT: Shang, Ellen S.
  APPLICANT: Champion, Cheryl I.
  APPLICANT: Blanco, David R.
  APPLICANT: Miller, James N.
  APPLICANT: Lovett, Michael A.
  APPLICANT: Mizabekov, Tajib A.
  APPLICANT: Kagan, Bruce L.
  APPLICANT: Tempst, Paul
  APPLICANT:
              Foley, Denise M.
  TITLE OF INVENTION: BORRELIA BURGDORFERI OUTER MEMBRANE PROTEINS
  FILE REFERENCE: UC Case No. 6153194 96-059-3/Skare et al.
  CURRENT APPLICATION NUMBER: US/09/183,217A
  CURRENT FILING DATE: 1998-10-29
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PRIOR APPLICATION NUMBER: 08/787,367
   PRIOR FILING DATE: 1997-01-22
  NUMBER OF SEQ ID NOS:
   SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 9
   LENGTH: 11
    TYPE: PRT
    ORGANISM: Borrelia burgdorferi
US-09-183-217-9
  Query Match
                          27.3%; Score 3; DB 3; Length 11;
  Best Local Similarity
                         100.0%; Pred. No. 1.8e+03;
            3; Conservative
                                0; Mismatches
                                                  0; Indels
                                                                 0; Gaps
                                                                             0;
            9 AIK 11
Qу
              111
            9 AIK 11
RESULT 30
US-09-206-059-4
; Sequence 4, Application US/09206059
; Patent No. 6201104
; GENERAL INFORMATION:
  APPLICANT: MacDonald, Nicholas
  APPLICANT: Sim, Kim Lee
  TITLE OF INVENTION: Angiogenesis-Inhibiting Protein Binding Peptides and
  TITLE OF INVENTION: Proteins and Methods of Use
  FILE REFERENCE: 05213-0370
   CURRENT APPLICATION NUMBER: US/09/206,059
  CURRENT FILING DATE: 1998-12-04
  NUMBER OF SEQ ID NOS: 80
  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 4
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   OTHER INFORMATION: Description of Artificial Sequence: synthetic
    OTHER INFORMATION: binding peptides
US-09-206-059-4
  Query Match
                          27.3%; Score 3; DB 3; Length 11;
  Best Local Similarity
                         100.0%; Pred. No. 1.8e+03;
 Matches
            3; Conservative
                              0; Mismatches
                                                                 0; Gaps
                                                0; Indels
                                                                             0;
            9 AIK 11
Qу
             -1.11
            5 AIK 7
Db
RESULT 31
US-09-208-966-3
; Sequence 3, Application US/09208966
; Patent No. 6221355
; GENERAL INFORMATION:
; APPLICANT: Dowdy, Steven F.
```

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TITLE OF INVENTION: ANTI-PATHOGEN SYSTEM AND METHODS OF USE THEREOF
  FILE REFERENCE: 48881/1742
  CURRENT APPLICATION NUMBER: US/09/208,966
   CURRENT FILING DATE: 1998-12-10
  EARLIER APPLICATION NUMBER: 60/082,402
  EARLIER FILING DATE: 1998-04-20
  EARLIER APPLICATION NUMBER: 60/069,012
  EARLIER FILING DATE: 1997-12-10
  NUMBER OF SEQ ID NOS: 57
  SOFTWARE: PatentIn Ver. 2.0
 SEQ ID NO 3
   LENGTH: 11
   TYPE: PRT
   ORGANISM: human
US-09-208-966-3
                         27.3%; Score 3; DB 3; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 1.8e+03;
          3; Conservative 0; Mismatches
                                                   0; Indels
                                                                     Gaps
                                                                             0;
            1 ARK 3
Qу
              \perp
            2 ARK 4
Db
RESULT 32
US-08-647-405B-3
; Sequence 3, Application US/08647405B
; Patent No. 6228654
; GENERAL INFORMATION:
  APPLICANT: Chait, Brian T.
  APPLICANT: Zhao, Yingming APPLICANT: Kent, Stephen B.H.
  TITLE OF INVENTION: METHODS FOR STRUCTURE ANALYSIS OF OLIGOSACCHARIDES
  FILE REFERENCE: Oligosaccharides
  CURRENT APPLICATION NUMBER: US/08/647,405B
  CURRENT FILING DATE: 1996-05-09
  NUMBER OF SEQ ID NOS: 7
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 3
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
    OTHER INFORMATION: Description of Artificial Sequence: Related to
   OTHER INFORMATION: human translationally controlled tumor protein
US-08-647-405B-3
  Query Match
                          27.3%; Score 3; DB 3; Length 11;
                          100.0%; Pred. No. 1.8e+03;
  Best Local Similarity
                                                                     Gaps
  Matches
            3; Conservative 0; Mismatches
                                                 0; Indels
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            1 ARK 3
Qy
              Db
            3 ARK 5
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RESULT 33
US-08-647-405B-4
; Sequence 4, Application US/08647405B
; Patent No. 6228654
; GENERAL INFORMATION:
  APPLICANT: Chait, Brian T.
  APPLICANT:
               Zhao, Yingming
  APPLICANT: Kent, Stephen B.H.
   TITLE OF INVENTION: METHODS FOR STRUCTURE ANALYSIS OF OLIGOSACCHARIDES
  FILE REFERENCE: Oligosaccharides
  CURRENT APPLICATION NUMBER: US/08/647,405B
  CURRENT FILING DATE: 1996-05-09
  NUMBER OF SEQ ID NOS: 7
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 4
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
    FEATURE:
    OTHER INFORMATION: Description of Artificial Sequence: Related to
    OTHER INFORMATION: human translationally controlled tumor protein
US-08-647-405B-4
  Query Match
                          27.3%; Score 3; DB 3; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.8e+03;
           3; Conservative
                               0; Mismatches
                                                0; Indels
                                                                 0; Gaps
                                                                             0;
           1 ARK 3
Qу
             +111
Db
            3 ARK 5
RESULT 34
US-09-177-249-212
; Sequence 212, Application US/09177249
; Patent No. 6229064
; GENERAL INFORMATION:
; APPLICANT: Fischer, Robert L.
; APPLICANT: Ohad, Nir
 APPLICANT: Kiyosue, Tomohiro
  APPLICANT: Yadegari, Ramin
  APPLICANT: Margossian, Linda
  APPLICANT: Harada, John
  APPLICANT: Goldberg, Robert B.
  APPLICANT: The Regents of the University of California
  TITLE OF INVENTION: Nucleic Acids That Control Seed and Fruit
  TITLE OF INVENTION: Development in Plants
  FILE REFERENCE: 023070-086120US
  CURRENT APPLICATION NUMBER: US/09/177,249
  CURRENT FILING DATE: 1998-10-22
  EARLIER APPLICATION NUMBER: US 09/071,838
  EARLIER FILING DATE: 1998-05-01
  NUMBER OF SEQ ID NOS: 324
  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 212
   LENGTH: 11
   TYPE: PRT
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ORGANISM: Arabidopsis sp.
US-09-177-249-212
  Query Match
                         27.3%; Score 3; DB 3; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.8e+03;
            3; Conservative 0; Mismatches 0; Indels
                                                                0; Gaps
                                                                            0;
           2 RKS 4
Qу
             \Box
            2 RKS 4
Db
RESULT 35
US-09-248-588-70
; Sequence 70, Application US/09248588
; Patent No. 6231864
; GENERAL INFORMATION:
; APPLICANT: Birkett, Ashley J.
  TITLE OF INVENTION: Strategically Modified Hepatitis B Core Proteins and
  TITLE OF INVENTION: their Derivatives
  FILE REFERENCE: SYN-101 4564/69529
  CURRENT APPLICATION NUMBER: US/09/248,588
  CURRENT FILING DATE: 1999-02-11
  EARLIER APPLICATION NUMBER: 60/074537
  EARLIER FILING DATE: 1998-02-12
  NUMBER OF SEQ ID NOS: 113
  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 70
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
US-09-248-588-70
                         27.3%; Score 3; DB 3; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 1.8e+03;
                              0; Mismatches
                                                                0;
 Matches
         3; Conservative
                                                  0; Indels
                                                                    Gaps
                                                                            0;
            4 SRD 6
Qу
              111
           8 SRD 10
Db
RESULT 36
US-08-160-604-73
; Sequence 73, Application US/08160604
; Patent No. 6232522
  GENERAL INFORMATION:
    APPLICANT: Harley, John
     APPLICANT: James, Judith A.
     APPLICANT: Scofield, R. H.
     TITLE OF INVENTION: PEPTIDE INDUCTION OF AUTOIMMUNITYAND CLINICAL
SYMPTOMATOLOGY
    NUMBER OF SEQUENCES:
                          127
     CORRESPONDENCE ADDRESS:
       ADDRESSEE: Patrea L. Pabst
      STREET: 1100 Peachtree Street, Suite 2800
      CITY: Atlanta
```

```
STATE: Georgia
      COUNTRY: USA
      ZIP: 30309-4530
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
     APPLICATION NUMBER: US/08/160,604
      FILING DATE: 30-NOV-1993
      CLASSIFICATION: 424
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 07/867,819
      FILING DATE: 13-APR-1992
    PRIOR APPLICATION DATA:
     APPLICATION NUMBER: US 07/648,205
      FILING DATE: 31-JAN-1991
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 07/472,947
      FILING DATE: 31-JAN-1990
    ATTORNEY/AGENT INFORMATION:
    NAME: Pabst, Patrea L.
      REGISTRATION NUMBER: 31,284
;
      REFERENCE/DOCKET NUMBER: OMRF114CIP(3)
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (404)-815-6508
      TELEFAX: (404)-815-6555
  INFORMATION FOR SEQ ID NO: 73:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
    HYPOTHETICAL: NO
    ANTI-SENSE: NO
    FRAGMENT TYPE: N-terminal
US-08-160-604-73
 Query Match 27.3%; Score 3; DB 3; Length 11; Best Local Similarity 100.0%; Pred. No. 1.8e+03;
 Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps
                                                                             0;
            7 MTA 9
Qу
             \perp
            9 MTA 11
Db
RESULT 37
US-09-410-025-1
; Sequence 1, Application US/09410025
; Patent No. 6251623
; GENERAL INFORMATION:
; APPLICANT: ARAHIRA, MASAOMI
; APPLICANT: FUKAZAWA, CHIKAFUSA
```

```
; TITLE OF INVENTION: OUICK ASSAY METHOD FOR THE ACTIVITY OF A PLANT-DERIVED,
ASPARAGINE
  TITLE OF INVENTION: RESIDUE-SPECIFIC ENDOPROTEASE
  FILE REFERENCE:
                  8361-0008-0
  CURRENT APPLICATION NUMBER: US/09/410,025
  CURRENT FILING DATE: 1999-10-01
  PRIOR APPLICATION NUMBER: JP10-327536
  PRIOR FILING DATE: 1998-11-04
; NUMBER OF SEQ ID NOS:
              PatentIn version 3.0
  SOFTWARE:
; SEQ ID NO 1
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Glycine max
US-09-410-025-1
 Query Match
                        27.3%; Score 3; DB 3; Length 11;
 Best Local Similarity 100.0%; Pred. No. 1.8e+03;
 Matches 3; Conservative 0; Mismatches 0; Indels
                                                              0; Gaps
                                                                         0;
           3 KSR 5
Qу
             Db
           2 KSR 4
RESULT 38
US-09-410-025-2
; Sequence 2, Application US/09410025
; Patent No. 6251623
; GENERAL INFORMATION:
; APPLICANT: ARAHIRA, MASAOMI
  APPLICANT: FUKAZAWA, CHIKAFUSA
  TITLE OF INVENTION: QUICK ASSAY METHOD FOR THE ACTIVITY OF A PLANT-DERIVED,
ASPARAGINE
  TITLE OF INVENTION: RESIDUE-SPECIFIC ENDOPROTEASE
                  8361-0008-0
  FILE REFERENCE:
  CURRENT APPLICATION NUMBER: US/09/410,025
  CURRENT FILING DATE: 1999-10-01
  PRIOR APPLICATION NUMBER: JP10-327536
  PRIOR FILING DATE: 1998-11-04
  NUMBER OF SEQ ID NOS:
              PatentIn version 3.0
  SOFTWARE:
; SEQ ID NO 2
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Glycine max
US-09-410-025-2
                        27.3%; Score 3; DB 3; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 1.8e+03;
                                                              0; Gaps
  Matches 3; Conservative 0; Mismatches 0; Indels
                                                                          0;
           3 KSR 5
Qy
             111
           2 KSR 4
Dh
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```
US-09-410-025-3
; Sequence 3, Application US/09410025
; Patent No. 6251623
; GENERAL INFORMATION:
  APPLICANT: ARAHIRA, MASAOMI
  APPLICANT: FUKAZAWA, CHIKAFUSA
  TITLE OF INVENTION: QUICK ASSAY METHOD FOR THE ACTIVITY OF A PLANT-DERIVED,
ASPARAGINE
  TITLE OF INVENTION: RESIDUE-SPECIFIC ENDOPROTEASE
 FILE REFERENCE: 8361-0008-0
 CURRENT APPLICATION NUMBER: US/09/410,025
; CURRENT FILING DATE: 1999-10-01
; PRIOR APPLICATION NUMBER: JP10-327536
  PRIOR FILING DATE: 1998-11-04
; NUMBER OF SEQ ID NOS: 11
; SOFTWARE:
            PatentIn version 3.0
; SEQ ID NO 3
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Glycine max
US-09-410-025-3
  Query Match
                        27.3%; Score 3; DB 3; Length 11;
 Best Local Similarity 100.0%; Pred. No. 1.8e+03;
 Matches 3; Conservative 0; Mismatches 0; Indels
                                                            0; Gaps
                                                                          0;
Qy
           3 KSR 5
             Db
           2 KSR 4
RESULT 40
US-09-410-025-4
; Sequence 4, Application US/09410025
; Patent No. 6251623
; GENERAL INFORMATION:
; APPLICANT: ARAHIRA, MASAOMI
 APPLICANT: FUKAZAWA, CHIKAFUSA
  TITLE OF INVENTION: QUICK ASSAY METHOD FOR THE ACTIVITY OF A PLANT-DERIVED,
ASPARAGINE
  TITLE OF INVENTION: RESIDUE-SPECIFIC ENDOPROTEASE
  FILE REFERENCE: 8361-0008-0
; CURRENT APPLICATION NUMBER: US/09/410,025
; CURRENT FILING DATE: 1999-10-01
; PRIOR APPLICATION NUMBER:
                            JP10-327536
; PRIOR FILING DATE: 1998-11-04
; NUMBER OF SEQ ID NOS: 11
  SOFTWARE:
            PatentIn version 3.0
; SEQ ID NO 4
   LENGTH: 11
   TYPE: PRT
; ORGANISM: Glycine max
US-09-410-025-4
                        27.3%; Score 3; DB 3; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 1.8e+03;
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RESULT 39

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Matches
           3; Conservative 0; Mismatches 0; Indels 0; Gaps
           3 KSR 5
Qу
            1 1 1
Db
           2 KSR 4
RESULT 41
US-09-410-025-5
; Sequence 5, Application US/09410025
; Patent No. 6251623
; GENERAL INFORMATION:
; APPLICANT: ARAHIRA, MASAOMI
; APPLICANT: FUKAZAWA, CHIKAFUSA
  TITLE OF INVENTION: QUICK ASSAY METHOD FOR THE ACTIVITY OF A PLANT-DERIVED,
ASPARAGINE
; TITLE OF INVENTION: RESIDUE-SPECIFIC ENDOPROTEASE
; FILE REFERENCE: 8361-0008-0
; CURRENT APPLICATION NUMBER: US/09/410,025
; CURRENT FILING DATE: 1999-10-01
; PRIOR APPLICATION NUMBER: JP10-327536
; PRIOR FILING DATE:
                       1998-11-04
; NUMBER OF SEQ ID NOS: 11
 SOFTWARE:
             PatentIn version 3.0
; SEQ ID NO 5
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Glycine max
US-09-410-025-5
                         27.3%; Score 3; DB 3; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 1.8e+03;
  Matches
           3; Conservative 0; Mismatches 0; Indels 0; Gaps
Qy
           3 KSR 5
             Dh
           2 KSR 4
RESULT 42
US-09-410-025-6
; Sequence 6, Application US/09410025
; Patent No. 6251623
; GENERAL INFORMATION:
; APPLICANT: ARAHIRA, MASAOMI
 APPLICANT: FUKAZAWA, CHIKAFUSA
  TITLE OF INVENTION: QUICK ASSAY METHOD FOR THE ACTIVITY OF A PLANT-DERIVED,
ASPARAGINE
; TITLE OF INVENTION: RESIDUE-SPECIFIC ENDOPROTEASE
  FILE REFERENCE: 8361-0008-0
; CURRENT APPLICATION NUMBER: US/09/410,025
; CURRENT FILING DATE: 1999-10-01
; PRIOR APPLICATION NUMBER:
                             JP10-327536
; PRIOR FILING DATE: 1998-11-04
; NUMBER OF SEQ ID NOS:
                         11
; SOFTWARE:
              PatentIn version 3.0
; SEQ ID NO 6
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```
TYPE: PRT
; ORGANISM: Glycine max
US-09-410-025-6
 Query Match
                        27.3%; Score 3; DB 3; Length 11;
 Best Local Similarity 100.0%; Pred. No. 1.8e+03;
 Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps
                                                                      0;
           3 KSR 5
            -111
           2 KSR 4
RESULT 43
US-09-410-025-7
; Sequence 7, Application US/09410025
; Patent No. 6251623
; GENERAL INFORMATION:
; APPLICANT: ARAHIRA, MASAOMI
; APPLICANT: FUKAZAWA, CHIKAFUSA
; TITLE OF INVENTION: QUICK ASSAY METHOD FOR THE ACTIVITY OF A PLANT-DERIVED,
ASPARAGINE
 TITLE OF INVENTION: RESIDUE-SPECIFIC ENDOPROTEASE
  FILE REFERENCE: 8361-0008-0
; CURRENT APPLICATION NUMBER: US/09/410,025
; CURRENT FILING DATE: 1999-10-01
; PRIOR APPLICATION NUMBER: JP10-327536
; PRIOR FILING DATE: 1998-11-04
; NUMBER OF SEQ ID NOS: 11
  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 7
   LENGTH: 11
   TYPE: PRT
  ORGANISM: Glycine max
US-09-410-025-7
                        27.3%; Score 3; DB 3; Length 11;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 1.8e+03;
 Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps
                                                                      0;
           3 KSR 5
Qу
            2 KSR 4
Db
RESULT 44
US-09-410-025-8
; Sequence 8, Application US/09410025
; Patent No. 6251623
; GENERAL INFORMATION:
; APPLICANT: ARAHIRA, MASAOMI
; APPLICANT: FUKAZAWA, CHIKAFUSA
; TITLE OF INVENTION: QUICK ASSAY METHOD FOR THE ACTIVITY OF A PLANT-DERIVED,
ASPARAGINE
; TITLE OF INVENTION: RESIDUE-SPECIFIC ENDOPROTEASE
; FILE REFERENCE: 8361-0008-0
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LENGTH: 11

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; CURRENT APPLICATION NUMBER: US/09/410,025
; CURRENT FILING DATE: 1999-10-01
; PRIOR APPLICATION NUMBER: JP10-327536
; PRIOR FILING DATE:
                     1998-11-04
; NUMBER OF SEQ ID NOS: 11
              PatentIn version 3.0
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; SEQ ID NO 8
   LENGTH: 11
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   ORGANISM: Glycine max
US-09-410-025-8
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RESULT 45
US-09-410-025-9
; Sequence 9, Application US/09410025
; Patent No. 6251623
; GENERAL INFORMATION:
; APPLICANT: ARAHIRA, MASAOMI
; APPLICANT: FUKAZAWA, CHIKAFUSA
; TITLE OF INVENTION: QUICK ASSAY METHOD FOR THE ACTIVITY OF A PLANT-DERIVED,
ASPARAGINE
  TITLE OF INVENTION: RESIDUE-SPECIFIC ENDOPROTEASE
  FILE REFERENCE: 8361-0008-0
  CURRENT APPLICATION NUMBER: US/09/410,025
; CURRENT FILING DATE: 1999-10-01
; PRIOR APPLICATION NUMBER: JP10-327536
; PRIOR FILING DATE:
                     1998-11-04
; NUMBER OF SEQ ID NOS:
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RESULT 46
US-09-410-025-10
; Sequence 10, Application US/09410025
; Patent No. 6251623
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; GENERAL INFORMATION:
 APPLICANT: ARAHIRA, MASAOMI
  APPLICANT: FUKAZAWA, CHIKAFUSA
  TITLE OF INVENTION: QUICK ASSAY METHOD FOR THE ACTIVITY OF A PLANT-DERIVED,
ASPARAGINE
  TITLE OF INVENTION: RESIDUE-SPECIFIC ENDOPROTEASE
  FILE REFERENCE: 8361-0008-0
  CURRENT APPLICATION NUMBER: US/09/410,025
  CURRENT FILING DATE: 1999-10-01
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  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 10
   LENGTH: 11
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US-09-410-025-10
                         27.3%; Score 3; DB 3; Length 11;
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         2 KSR 4
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US-09-025-769B-186
; Sequence 186, Application US/09025769B
; Patent No. 6300064
  GENERAL INFORMATION:
    APPLICANT: Knappik, Achim
    APPLICANT: Pack, Peter
    APPLICANT: Ilag, Vic
    APPLICANT: Ge, Liming
    APPLICANT: Moroney, Simon
    APPLICANT: Plueckthun, Andreas
    TITLE OF INVENTION: Protein/(Poly)peptide libraries
    NUMBER OF SEQUENCES: 373
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: James F. Haley, Jr., Esq. c/o Fish & Neave
      STREET: 1251 Avenue of the Americas
      CITY: New York
      STATE: New York
      COUNTRY: USA
      ZIP: 10021
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.30 (EPO)
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/09/025,769B
       FILING DATE: 18-FEB-1998
    PRIOR APPLICATION DATA:
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APPLICATION NUMBER: EP 95 11 3021.0
       FILING DATE: 18-AUG-1995
     ATTORNEY/AGENT INFORMATION:
       NAME: James F. Haley, Jr., Esq.
       REGISTRATION NUMBER: 27,794
       REFERENCE/DOCKET NUMBER: MORPHO/5
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: (212)596-9000
       TELEFAX: (212)596-9090
   INFORMATION FOR SEQ ID NO: 186:
     SEQUENCE CHARACTERISTICS:
       LENGTH: 11 amino acids
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US-09-025-769B-186
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Db
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; Sequence 567, Application US/09227357
; Patent No. 6342581
; GENERAL INFORMATION:
; APPLICANT: Fischer et al.
  TITLE OF INVENTION: 123 Human Secreted Proteins
  FILE REFERENCE: PZ010P1
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   CURRENT FILING DATE: 1999-01-08
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   EARLIER FILING DATE: 1998-07-07
   EARLIER APPLICATION NUMBER: 60/051,926
   EARLIER FILING DATE: 1997-07-08
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   EARLIER FILING DATE: 1997-07-08
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   EARLIER FILING DATE: 1997-07-08
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   EARLIER FILING DATE: 1997-08-18
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   EARLIER FILING DATE: 1997-08-18
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   NUMBER OF SEQ ID NOS: 672
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    ORGANISM: Homo sapiens
US-09-227-357-567
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Query Match 27.3%; Score 3; DB 4; Length 11; Best Local Similarity 100.0%; Pred. No. 1.8e+03;

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             Db
            7 AIK 9
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US-09-314-268-171
; Sequence 171, Application US/09314268
; Patent No. 6346377
; GENERAL INFORMATION:
  APPLICANT: Doorbar, John
  TITLE OF INVENTION: IMPROVEMENTS IN OR RELATING TO SCREENING FOR PAPILLOMA
  TITLE OF INVENTION: VIRUSES
  FILE REFERENCE: 3789/80902
  CURRENT APPLICATION NUMBER: US/09/314,268
  CURRENT FILING DATE: 1999-03-19
  EARLIER APPLICATION NUMBER: 09/314,268
  EARLIER FILING DATE: 1999-05-18
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US-09-314-268-171
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Qу
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Db
RESULT 50
US-09-277-599B-2
; Sequence 2, Application US/09277599B
; Patent No. 6395879
; GENERAL INFORMATION:
 APPLICANT: Mandrell, David
  APPLICANT: Bates, Anna
  APPLICANT: Brandon, David
  TITLE OF INVENTION:
                       Monoclonal Antibodies Against Campylobacter jejuni and
Campylobacter coli
  TITLE OF INVENTION: Outer Membrane Antigens
  FILE REFERENCE:
                   Mandrell
  CURRENT APPLICATION NUMBER: US/09/277,599B
  CURRENT FILING DATE: 1999-03-26
                              US 60/080,166
  PRIOR APPLICATION NUMBER:
  PRIOR FILING DATE: 1998-03-31
  NUMBER OF SEQ ID NOS: 2
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SOFTWARE:
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   NAME/KEY: misc feature
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US-09-277-599B-2
 Query Match
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 Best Local Similarity 100.0%; Pred. No. 1.8e+03;
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Qу
             Db
           7 AIK 9
RESULT 51
US-09-149-476-698
; Sequence 698, Application US/09149476
; Patent No. 6420526
; GENERAL INFORMATION:
; APPLICANT: Rosen et al.
  TITLE OF INVENTION: 186 Human Secreted proteins
  FILE REFERENCE: PZ002P1
  CURRENT APPLICATION NUMBER: US/09/149,476
  CURRENT FILING DATE: 1998-09-08
  EARLIER APPLICATION NUMBER: PCT/US98/04493
  EARLIER FILING DATE: 1998-03-06
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  EARLIER FILING DATE: 1997-03-07
  EARLIER APPLICATION NUMBER: 60/040,333
  EARLIER FILING DATE: 1997-03-07
  EARLIER APPLICATION NUMBER: 60/038,621
  EARLIER FILING DATE: 1997-03-07
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  EARLIER FILING DATE: 1997-05-23
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- ; EARLIER APPLICATION NUMBER: 60/047,503
- ; EARLIER FILING DATE: 1997-05-23
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- ; EARLIER APPLICATION NUMBER: 60/047,612
- ; EARLIER FILING DATE: 1997-05-23
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- ; EARLIER FILING DATE: 1997-05-23
- ; EARLIER APPLICATION NUMBER: 60/047,601
- ; EARLIER FILING DATE: 1997-05-23
- ; EARLIER APPLICATION NUMBER: 60/043,580
- ; EARLIER FILING DATE: 1997-04-11
- ; EARLIER APPLICATION NUMBER: 60/043,568
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- ; EARLIER APPLICATION NUMBER: 60/043,315
- ; EARLIER FILING DATE: 1997-04-11

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; EARLIER APPLICATION NUMBER: 60/048,974
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- ; EARLIER APPLICATION NUMBER: 60/056,886
- ; EARLIER FILING DATE: 1997-08-22
- ; EARLIER APPLICATION NUMBER: 60/056,877
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- ; EARLIER APPLICATION NUMBER: 60/056,903
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Qу

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Db
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RESULT 52
US-09-177-165A-1
; Sequence 1, Application US/09177165A
; Patent No. 6426205
; GENERAL INFORMATION:
  APPLICANT: Tyers, Mike
  APPLICANT: Willems, Andrew
  TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR MODULATING UBIQUITIN
  TITLE OF INVENTION: DEPENDENT PROTEOLYSIS
  FILE REFERENCE: 11757.10USU1
  CURRENT APPLICATION NUMBER: US/09/177,165A
  CURRENT FILING DATE: 1998-10-22
  PRIOR APPLICATION NUMBER: 60/092,443
  PRIOR FILING DATE: 1998-07-10
  PRIOR APPLICATION NUMBER: 60/063,254
  PRIOR FILING DATE: 1997-10-24
  NUMBER OF SEQ ID NOS: 50
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US-09-177-165A-1
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Qу
              III
            4 TAI 6
Dh
RESULT 53
US-08-255-208A-77
; Sequence 77, Application US/08255208A
; Patent No. 6440656
  GENERAL INFORMATION:
    APPLICANT: Bolognesi, Dani P.
    APPLICANT: Matthews, Thomas J.
    APPLICANT: Wild, Carl T.
    APPLICANT:
                Barney, Shawn O.
    APPLICANT: Lambert, Dennis M.
    APPLICANT: Petteway Jr., Stephen R.
    TITLE OF INVENTION: SYNTHETIC PEPTIDE INHIBITORS OF HIV
    TITLE OF INVENTION: TRANSMISSION
    NUMBER OF SEQUENCES: 111
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Pennie & Edmonds LLP
       STREET: 1155 Avenue of the Americas
      CITY: New York
      STATE: New York
     COUNTRY: USA
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      MEDIUM TYPE: Floppy disk
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      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
     CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/255,208A
      FILING DATE: 07-JUN-1994
      CLASSIFICATION: 435
    ATTORNEY/AGENT INFORMATION:
      NAME: Coruzzi, Laura A.
      REGISTRATION NUMBER: 30,742
      REFERENCE/DOCKET NUMBER: 7872-010
    TELECOMMUNICATION INFORMATION:
;
      TELEPHONE: (212) 790-9090
      TELEFAX: (212) 869-9741/8864
      TELEX: 66141 PENNIE
  INFORMATION FOR SEO ID NO:
     SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS:
;
      TOPOLOGY: unknown
    MOLECULE TYPE: peptide
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      NAME/KEY:
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      LOCATION:
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      OTHER INFORMATION: /note= "Preceeding this amino acid, there may be an
amino group
      OTHER INFORMATION: an acetyl group, a 9-fluorenylmethoxy-carbonyl group,
a hydroph
      OTHER INFORMATION: group or a macromolecular carrier group."
     FEATURE:
      NAME/KEY: Modified-site
      LOCATION: 11
      OTHER INFORMATION: /label= B
      OTHER INFORMATION: /note= "Following this amino acid, there may be a
carboxyl grou
      OTHER INFORMATION: an amido group, a hydrophobic group, or a
macromolecular carrie
      OTHER INFORMATION: group."
US-08-255-208A-77
                         27.3%; Score 3; DB 4; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 1.8e+03;
                                                              0; Gaps
  Matches 3; Conservative 0; Mismatches 0; Indels
           2 RKS 4
Qу
             | | |
           5 RKS 7
Db
RESULT 54
US-08-469-260A-550
; Sequence 550, Application US/08469260A
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```
; Patent No. 6451578
  GENERAL INFORMATION:
    APPLICANT: JOHN N. SIMONS
    APPLICANT: TAMI J. PILOT-MATIAS
    APPLICANT: GEORGE J. DAWSON
    APPLICANT: GEORGE G. SCHLAUDER
    APPLICANT: SURESH M. DESAI
APPLICANT: THOMAS P. LEARY
    APPLICANT: ANTHONY SCOTT MUERHOFF
    APPLICANT: JAMES C. ERKER
    APPLICANT: SHERI L. BUIJK
   APPLICANT: ISA K. MUSHAHWAR
    TITLE OF INVENTION: NON-A, NON-B. NON-C, NON-D, NON-E HEPATITIS
    TITLE OF INVENTION: REAGENTS AND METHODS FOR THEIR USE
    NUMBER OF SEQUENCES: 716
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: ABBOTT LABORATORIES D377/AP6D
      STREET: 100 ABBOTT PARK ROAD
      CITY: ABBOTT PARK
      STATE: IL
      COUNTRY: USA
      ZIP: 60064-3500
    COMPUTER READABLE FORM:
    MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
    SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/469,260A
      FILING DATE:
      CLASSIFICATION:
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US/08/424,550
      FILING DATE:
    ATTORNEY/AGENT INFORMATION:
      NAME: POREMBSKI, PRISCILLA E.
      REGISTRATION NUMBER: 33,207
      REFERENCE/DOCKET NUMBER: 5527.PC.01
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 708-937-6365
      TELEFAX: 708-938-2623
;
  INFORMATION FOR SEQ ID NO: 550:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
    MOLECULE TYPE: protein
US-08-469-260A-550
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  Best Local Similarity 100.0%; Pred. No. 1.8e+03;
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Qу
           9 AIK 11
             \mathbf{I}
Db
           2 AIK 4
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RESULT 55
US-09-561-490E-56
; Sequence 56, Application US/09561490E
; Patent No. 6468537
; GENERAL INFORMATION:
  APPLICANT: DATTA, Syamal K
  APPLICANT: KALIYAPERUMAL, Arunan
  TITLE OF INVENTION: LOCALIZATION OF MAJOR PEPTIDE AUTOEPITOPES FOR NUCLEOSOME
SPECIF
  TITLE OF INVENTION: IC T CELLS OF SYSTEMIC LUPUS ERYTHEMATOSUS
  FILE REFERENCE: 290-13U1 (53662-5017
  CURRENT APPLICATION NUMBER: US/09/561,490E
;
  CURRENT FILING DATE: 2000-04-28
  PRIOR APPLICATION NUMBER: US 60/131,448
  PRIOR FILING DATE: 1999-04-28
 NUMBER OF SEQ ID NOS: 61
  SOFTWARE: PatentIn version 3.1
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   LENGTH: 11
    TYPE: PRT
    ORGANISM: Artificial sequence
    FEATURE:
    OTHER INFORMATION: Histone fragment
US-09-561-490E-56
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  Best Local Similarity 100.0%; Pred. No. 1.8e+03;
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            3; Conservative
                                                                0; Gaps 0;
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Qу
             Db
            9 KSR 11
RESULT 56
US-09-104-337A-340
; Sequence 340, Application US/09104337A
; Patent No. 6492160
    GENERAL INFORMATION:
;
         APPLICANT: Winter, Gregory Paul
                    Griffiths, Andrew David
                    Williams, Samuel Cameron
                    Waterhouse, Peter
                    Nissim, Ahuva
                    Johnson, Kevin Stuart
                    Smith, Andrew John Hammond
         TITLE OF INVENTION: Methods for producing members of specific
                             binding pairs
         NUMBER OF SEQUENCES: 600
         CORRESPONDENCE ADDRESS:
              ADDRESSEE: Audrey L. Bartnicki
              STREET: Marshall, Gerstein & Borun
                      6300 Sears Tower, 233 South Wacker Drive
              CITY: Chicago
              STATE: Illinois
              COUNTRY: USA
```

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ZIP: 60606-6402
        COMPUTER READABLE FORM:
             MEDIUM TYPE: Floppy disk
             COMPUTER: IBM PC compatible
             OPERATING SYSTEM: PC-DOS/MS-DOS
             SOFTWARE: PatentIn Release #1.0, Version #1.25 (EPO)
        CURRENT APPLICATION DATA:
             APPLICATION NUMBER: US/09/104,337A
             FILING DATE: 25-Jun-1998
        PRIOR APPLICATION DATA:
             APPLICATION NUMBER: US 08/350,260
             FILING DATE: 05-DEC-1994
             APPLICATION NUMBER: GB 9110549.4
             FILING DATE: 15-MAY-1991
             APPLICATION NUMBER: GB 9206318.9
             FILING DATE: 24-MAR-1992
             APPLICATION NUMBER: PCT/GB92/00883
             FILING DATE: 15-MAY-1992
             APPLICATION NUMBER: PCT/GB93/00605
             FILING DATE: 24-MAR-1993
             APPLICATION NUMBER: US 08/150,002
             FILING DATE: 31-MAR-1994
             APPLICATION NUMBER: US 08/307,619
             FILING DATE: 16-SEP-1994
        ATTORNEY/AGENT INFORMATION:
             NAME: Bartnicki, Audrey L.
             REGISTRATION NUMBER: 40,499
              REFERENCE/DOCKET NUMBER: 28111/32372A
        TELECOMMUNICATION INFORMATION:
             TELEPHONE: 312-474-6300
   INFORMATION FOR SEQ ID NO: 340:
        SEQUENCE CHARACTERISTICS:
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              TYPE: amino acid
              STRANDEDNESS: single
              TOPOLOGY: linear
         SEQUENCE DESCRIPTION: SEQ ID NO: 340:
US-09-104-337A-340
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  Query Match
 Best Local Similarity 100.0%; Pred. No. 1.8e+03;
          3; Conservative 0; Mismatches 0; Indels
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Qy
             -111
            2 SRD 4
Db
RESULT 57
US-09-104-337A-342
; Sequence 342, Application US/09104337A
; Patent No. 6492160
    GENERAL INFORMATION:
         APPLICANT: Winter, Gregory Paul
                    Griffiths, Andrew David
                    Williams, Samuel Cameron
                    Waterhouse, Peter
```

```
Nissim, Ahuva
                    Johnson, Kevin Stuart
                   Smith, Andrew John Hammond
        TITLE OF INVENTION: Methods for producing members of specific
                            binding pairs
        NUMBER OF SEQUENCES: 600
        CORRESPONDENCE ADDRESS:
             ADDRESSEE: Audrey L. Bartnicki
             STREET: Marshall, Gerstein & Borun
                      6300 Sears Tower, 233 South Wacker Drive
             CITY: Chicago
             STATE: Illinois
             COUNTRY: USA
             ZIP: 60606-6402
        COMPUTER READABLE FORM:
             MEDIUM TYPE: Floppy disk
             COMPUTER: IBM PC compatible
             OPERATING SYSTEM: PC-DOS/MS-DOS
              SOFTWARE: PatentIn Release #1.0, Version #1.25 (EPO)
        CURRENT APPLICATION DATA:
             APPLICATION NUMBER: US/09/104,337A
              FILING DATE: 25-Jun-1998
        PRIOR APPLICATION DATA:
             APPLICATION NUMBER: US 08/350,260
              FILING DATE: 05-DEC-1994
             APPLICATION NUMBER: GB 9110549.4
             FILING DATE: 15-MAY-1991
             APPLICATION NUMBER: GB 9206318.9
             FILING DATE: 24-MAR-1992
             APPLICATION NUMBER: PCT/GB92/00883
              FILING DATE: 15-MAY-1992
             APPLICATION NUMBER: PCT/GB93/00605
              FILING DATE: 24-MAR-1993
             APPLICATION NUMBER: US 08/150,002
              FILING DATE: 31-MAR-1994
              APPLICATION NUMBER: US 08/307,619
              FILING DATE: 16-SEP-1994
        ATTORNEY/AGENT INFORMATION:
              NAME: Bartnicki, Audrey L.
              REGISTRATION NUMBER: 40,499
              REFERENCE/DOCKET NUMBER: 28111/32372A
         TELECOMMUNICATION INFORMATION:
              TELEPHONE: 312-474-6300
    INFORMATION FOR SEQ ID NO: 342:
         SEQUENCE CHARACTERISTICS:
              LENGTH: 11 amino acids
              TYPE: amino acid
              STRANDEDNESS: single
              TOPOLOGY: linear
         SEQUENCE DESCRIPTION: SEQ ID NO: 342:
US-09-104-337A-342
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  Query Match
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RESULT 58
US-09-104-337A-349
; Sequence 349, Application US/09104337A
; Patent No. 6492160
   GENERAL INFORMATION:
         APPLICANT: Winter, Gregory Paul
                    Griffiths, Andrew David
                    Williams, Samuel Cameron
                    Waterhouse, Peter
                    Nissim, Ahuva
                    Johnson, Kevin Stuart
                    Smith, Andrew John Hammond
         TITLE OF INVENTION: Methods for producing members of specific
                             binding pairs
         NUMBER OF SEQUENCES: 600
         CORRESPONDENCE ADDRESS:
              ADDRESSEE: Audrey L. Bartnicki
              STREET: Marshall, Gerstein & Borun
                      6300 Sears Tower, 233 South Wacker Drive
              CITY: Chicago
              STATE: Illinois
              COUNTRY: USA
              ZIP: 60606-6402
         COMPUTER READABLE FORM:
              MEDIUM TYPE: Floppy disk
              COMPUTER: IBM PC compatible
              OPERATING SYSTEM: PC-DOS/MS-DOS
              SOFTWARE: PatentIn Release #1.0, Version #1.25 (EPO)
         CURRENT APPLICATION DATA:
              APPLICATION NUMBER: US/09/104,337A
              FILING DATE: 25-Jun-1998
         PRIOR APPLICATION DATA:
              APPLICATION NUMBER: US 08/350,260
              FILING DATE: 05-DEC-1994
              APPLICATION NUMBER: GB 9110549.4
              FILING DATE: 15-MAY-1991
              APPLICATION NUMBER: GB 9206318.9
              FILING DATE: 24-MAR-1992
              APPLICATION NUMBER: PCT/GB92/00883
              FILING DATE: 15-MAY-1992
              APPLICATION NUMBER: PCT/GB93/00605
              FILING DATE: 24-MAR-1993
              APPLICATION NUMBER: US 08/150,002
              FILING DATE: 31-MAR-1994
              APPLICATION NUMBER: US 08/307,619
              FILING DATE: 16-SEP-1994
         ATTORNEY/AGENT INFORMATION:
              NAME: Bartnicki, Audrey L.
              REGISTRATION NUMBER: 40,499
              REFERENCE/DOCKET NUMBER: 28111/32372A
         TELECOMMUNICATION INFORMATION:
              TELEPHONE: 312-474-6300
   INFORMATION FOR SEQ ID NO: 349:
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SEQUENCE CHARACTERISTICS:
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US-09-104-337A-349
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                               0; Mismatches
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            4 SRD 6
QУ
              111
            2 SRD 4
Db
RESULT 59
US-09-104-337A-375
; Sequence 375, Application US/09104337A
 Patent No. 6492160
    GENERAL INFORMATION:
         APPLICANT: Winter, Gregory Paul
                    Griffiths, Andrew David
                    Williams, Samuel Cameron
                    Waterhouse, Peter
                    Nissim, Ahuva
                    Johnson, Kevin Stuart
                    Smith, Andrew John Hammond
         TITLE OF INVENTION: Methods for producing members of specific
                             binding pairs
         NUMBER OF SEQUENCES: 600
         CORRESPONDENCE ADDRESS:
              ADDRESSEE: Audrey L. Bartnicki
              STREET: Marshall, Gerstein & Borun
                      6300 Sears Tower, 233 South Wacker Drive
              CITY: Chicago
              STATE: Illinois
              COUNTRY: USA
              ZIP: 60606-6402
         COMPUTER READABLE FORM:
              MEDIUM TYPE: Floppy disk
              COMPUTER: IBM PC compatible
              OPERATING SYSTEM: PC-DOS/MS-DOS
              SOFTWARE: PatentIn Release #1.0, Version #1.25 (EPO)
         CURRENT APPLICATION DATA:
              APPLICATION NUMBER: US/09/104,337A
              FILING DATE: 25-Jun-1998
         PRIOR APPLICATION DATA:
              APPLICATION NUMBER: US 08/350,260
              FILING DATE: 05-DEC-1994
              APPLICATION NUMBER: GB 9110549.4
              FILING DATE: 15-MAY-1991
              APPLICATION NUMBER: GB 9206318.9
              FILING DATE: 24-MAR-1992
              APPLICATION NUMBER: PCT/GB92/00883
              FILING DATE: 15-MAY-1992
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APPLICATION NUMBER: PCT/GB93/00605
              FILING DATE: 24-MAR-1993
              APPLICATION NUMBER: US 08/150,002
              FILING DATE: 31-MAR-1994
              APPLICATION NUMBER: US 08/307,619
              FILING DATE: 16-SEP-1994
         ATTORNEY/AGENT INFORMATION:
              NAME: Bartnicki, Audrey L.
              REGISTRATION NUMBER: 40,499
              REFERENCE/DOCKET NUMBER: 28111/32372A
         TELECOMMUNICATION INFORMATION:
              TELEPHONE: 312-474-6300
    INFORMATION FOR SEQ ID NO: 375:
         SEQUENCE CHARACTERISTICS:
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              TYPE: amino acid
              STRANDEDNESS: single
              TOPOLOGY: linear
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US-09-104-337A-375
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            3; Conservative
                              0; Mismatches 0; Indels
                                                                             0;
                                                               0; Gaps
Qy ·
            4 SRD 6
             \perp
Db
            2 SRD 4
RESULT 60
US-09-104-337A-424
; Sequence 424, Application US/09104337A
; Patent No. 6492160
    GENERAL INFORMATION:
         APPLICANT: Winter, Gregory Paul
                    Griffiths, Andrew David
                    Williams, Samuel Cameron
                    Waterhouse, Peter
                    Nissim, Ahuva
                    Johnson, Kevin Stuart
                    Smith, Andrew John Hammond
         TITLE OF INVENTION: Methods for producing members of specific
                             binding pairs
         NUMBER OF SEQUENCES: 600
         CORRESPONDENCE ADDRESS:
              ADDRESSEE: Audrey L. Bartnicki
              STREET: Marshall, Gerstein & Borun
                      6300 Sears Tower, 233 South Wacker Drive
              CITY: Chicago
              STATE: Illinois
              COUNTRY: USA
              ZIP: 60606-6402
         COMPUTER READABLE FORM:
             MEDIUM TYPE: Floppy disk
              COMPUTER: IBM PC compatible
              OPERATING SYSTEM: PC-DOS/MS-DOS
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SOFTWARE: PatentIn Release #1.0, Version #1.25 (EPO)
        CURRENT APPLICATION DATA:
             APPLICATION NUMBER: US/09/104,337A
             FILING DATE: 25-Jun-1998
        PRIOR APPLICATION DATA:
             APPLICATION NUMBER: US 08/350,260
             FILING DATE: 05-DEC-1994
             APPLICATION NUMBER: GB 9110549.4
             FILING DATE: 15-MAY-1991
             APPLICATION NUMBER: GB 9206318.9
             FILING DATE: 24-MAR-1992
             APPLICATION NUMBER: PCT/GB92/00883
             FILING DATE: 15-MAY-1992
;
             APPLICATION NUMBER: PCT/GB93/00605
             FILING DATE: 24-MAR-1993
             APPLICATION NUMBER: US 08/150,002
              FILING DATE: 31-MAR-1994
             APPLICATION NUMBER: US 08/307,619
              FILING DATE: 16-SEP-1994
        ATTORNEY/AGENT INFORMATION:
              NAME: Bartnicki, Audrey L.
              REGISTRATION NUMBER: 40,499
              REFERENCE/DOCKET NUMBER: 28111/32372A
        TELECOMMUNICATION INFORMATION:
              TELEPHONE: 312-474-6300
    INFORMATION FOR SEQ ID NO: 424:
         SEQUENCE CHARACTERISTICS:
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;
              TYPE: amino acid
              STRANDEDNESS: single
              TOPOLOGY: linear
         SEQUENCE DESCRIPTION: SEQ ID NO: 424:
US-09-104-337A-424
                          27.3%; Score 3; DB 4; Length 11;
  Query Match
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  Matches
           3; Conservative
            4 SRD 6
Qу
              \pm 111
            2 SRD 4
Db
RESULT 61
US-09-104-337A-427
; Sequence 427, Application US/09104337A
; Patent No. 6492160
    GENERAL INFORMATION:
         APPLICANT: Winter, Gregory Paul
                    Griffiths, Andrew David
                    Williams, Samuel Cameron
                    Waterhouse, Peter
                    Nissim, Ahuva
                    Johnson, Kevin Stuart
                    Smith, Andrew John Hammond
         TITLE OF INVENTION: Methods for producing members of specific
                             binding pairs
```

```
NUMBER OF SEQUENCES: 600
         CORRESPONDENCE ADDRESS:
              ADDRESSEE: Audrey L. Bartnicki
              STREET: Marshall, Gerstein & Borun
                      6300 Sears Tower, 233 South Wacker Drive
              CITY: Chicago
              STATE: Illinois
              COUNTRY: USA
              ZIP: 60606-6402
         COMPUTER READABLE FORM:
              MEDIUM TYPE: Floppy disk
              COMPUTER: IBM PC compatible
              OPERATING SYSTEM: PC-DOS/MS-DOS
              SOFTWARE: PatentIn Release #1.0, Version #1.25 (EPO)
        CURRENT APPLICATION DATA:
              APPLICATION NUMBER: US/09/104,337A
              FILING DATE: 25-Jun-1998
        PRIOR APPLICATION DATA:
              APPLICATION NUMBER: US 08/350,260
              FILING DATE: 05-DEC-1994
              APPLICATION NUMBER: GB 9110549.4
              FILING DATE: 15-MAY-1991
              APPLICATION NUMBER: GB 9206318.9
              FILING DATE: 24-MAR-1992
             APPLICATION NUMBER: PCT/GB92/00883
              FILING DATE: 15-MAY-1992
              APPLICATION NUMBER: PCT/GB93/00605
              FILING DATE: 24-MAR-1993
             APPLICATION NUMBER: US 08/150,002
              FILING DATE: 31-MAR-1994
              APPLICATION NUMBER: US 08/307,619
              FILING DATE: 16-SEP-1994
        ATTORNEY/AGENT INFORMATION:
              NAME: Bartnicki, Audrey L.
              REGISTRATION NUMBER: 40,499
              REFERENCE/DOCKET NUMBER: 28111/32372A
        TELECOMMUNICATION INFORMATION:
              TELEPHONE: 312-474-6300
   INFORMATION FOR SEQ ID NO: 427:
         SEQUENCE CHARACTERISTICS:
              LENGTH: 11 amino acids
              TYPE: amino acid
              STRANDEDNESS: single
              TOPOLOGY: linear
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US-09-104-337A-427
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                          27.3%; Score 3; DB 4; Length 11;
 Best Local Similarity 100.0%; Pred. No. 1.8e+03;
           3; Conservative 0; Mismatches 0; Indels 0; Gaps
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            4 SRD 6
Qу
              \perp
            2 SRD 4
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```
US-09-104-337A-430
; Sequence 430, Application US/09104337A
 Patent No. 6492160
    GENERAL INFORMATION:
         APPLICANT: Winter, Gregory Paul
                    Griffiths, Andrew David
                    Williams, Samuel Cameron
                    Waterhouse, Peter
                    Nissim, Ahuva
                    Johnson, Kevin Stuart
                    Smith, Andrew John Hammond
         TITLE OF INVENTION: Methods for producing members of specific
                             binding pairs
         NUMBER OF SEQUENCES: 600
         CORRESPONDENCE ADDRESS:
              ADDRESSEE: Audrey L. Bartnicki
              STREET: Marshall, Gerstein & Borun
                      6300 Sears Tower, 233 South Wacker Drive
              CITY: Chicago
              STATE: Illinois
              COUNTRY: USA
              ZIP: 60606-6402
         COMPUTER READABLE FORM:
              MEDIUM TYPE: Floppy disk
              COMPUTER: IBM PC compatible
              OPERATING SYSTEM: PC-DOS/MS-DOS
              SOFTWARE: PatentIn Release #1.0, Version #1.25 (EPO)
         CURRENT APPLICATION DATA:
              APPLICATION NUMBER: US/09/104,337A
              FILING DATE: 25-Jun-1998
         PRIOR APPLICATION DATA:
              APPLICATION NUMBER: US 08/350,260
              FILING DATE: 05-DEC-1994
              APPLICATION NUMBER: GB 9110549.4
              FILING DATE: 15-MAY-1991
              APPLICATION NUMBER: GB 9206318.9
              FILING DATE: 24-MAR-1992
            APPLICATION NUMBER: PCT/GB92/00883
              FILING DATE: 15-MAY-1992
              APPLICATION NUMBER: PCT/GB93/00605
              FILING DATE: 24-MAR-1993
              APPLICATION NUMBER: US 08/150,002
              FILING DATE: 31-MAR-1994
              APPLICATION NUMBER: US 08/307,619
              FILING DATE: 16-SEP-1994
         ATTORNEY/AGENT INFORMATION:
              NAME: Bartnicki, Audrey L.
              REGISTRATION NUMBER: 40,499
              REFERENCE/DOCKET NUMBER: 28111/32372A
         TELECOMMUNICATION INFORMATION:
              TELEPHONE: 312-474-6300
;
    INFORMATION FOR SEQ ID NO: 430:
         SEQUENCE CHARACTERISTICS:
              LENGTH: 11 amino acids
             TYPE: amino acid
              STRANDEDNESS: single
              TOPOLOGY: linear
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SEQUENCE DESCRIPTION: SEQ ID NO: 430:
US-09-104-337A-430
                          27.3%; Score 3; DB 4; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 1.8e+03;
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                                                                 0; Gaps
 Matches
            4 SRD 6
Qу
              +111
Db
            2 SRD 4
RESULT 63
US-09-104-337A-516
; Sequence 516, Application US/09104337A
; Patent No. 6492160
    GENERAL INFORMATION:
         APPLICANT: Winter, Gregory Paul
                    Griffiths, Andrew David
                    Williams, Samuel Cameron
                    Waterhouse, Peter
                    Nissim, Ahuva
                    Johnson, Kevin Stuart
                    Smith, Andrew John Hammond
         TITLE OF INVENTION: Methods for producing members of specific
                             binding pairs
         NUMBER OF SEQUENCES: 600
         CORRESPONDENCE ADDRESS:
              ADDRESSEE: Audrey L. Bartnicki
              STREET: Marshall, Gerstein & Borun
                      6300 Sears Tower, 233 South Wacker Drive
              CITY: Chicago
              STATE: Illinois
              COUNTRY: USA
              ZIP: 60606-6402
         COMPUTER READABLE FORM:
              MEDIUM TYPE: Floppy disk
              COMPUTER: IBM PC compatible
              OPERATING SYSTEM: PC-DOS/MS-DOS
              SOFTWARE: PatentIn Release #1.0, Version #1.25 (EPO)
         CURRENT APPLICATION DATA:
              APPLICATION NUMBER: US/09/104,337A
              FILING DATE: 25-Jun-1998
         PRIOR APPLICATION DATA:
              APPLICATION NUMBER: US 08/350,260
              FILING DATE: 05-DEC-1994
              APPLICATION NUMBER: GB 9110549.4
              FILING DATE: 15-MAY-1991
              APPLICATION NUMBER: GB 9206318.9
              FILING DATE: 24-MAR-1992
              APPLICATION NUMBER: PCT/GB92/00883
              FILING DATE: 15-MAY-1992
              APPLICATION NUMBER: PCT/GB93/00605
              FILING DATE: 24-MAR-1993
              APPLICATION NUMBER: US 08/150,002
              FILING DATE: 31-MAR-1994
              APPLICATION NUMBER: US 08/307,619
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```
FILING DATE: 16-SEP-1994
        ATTORNEY/AGENT INFORMATION:
              NAME: Bartnicki, Audrey L.
              REGISTRATION NUMBER: 40,499
              REFERENCE/DOCKET NUMBER: 28111/32372A
         TELECOMMUNICATION INFORMATION:
              TELEPHONE: 312-474-6300
    INFORMATION FOR SEQ ID NO: 516:
         SEQUENCE CHARACTERISTICS:
              LENGTH: 11 amino acids
              TYPE: amino acid
              STRANDEDNESS: single
              TOPOLOGY: linear
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US-09-104-337A-516
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            4 SRD 6
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            2 SRD 4
RESULT 64
US-09-104-337A-522
; Sequence 522, Application US/09104337A
; Patent No. 6492160
   GENERAL INFORMATION:
        APPLICANT: Winter, Gregory Paul
                    Griffiths, Andrew David
                    Williams, Samuel Cameron
                    Waterhouse, Peter
                    Nissim, Ahuva
                    Johnson, Kevin Stuart
                    Smith, Andrew John Hammond
         TITLE OF INVENTION: Methods for producing members of specific
                             binding pairs
        NUMBER OF SEQUENCES: 600
         CORRESPONDENCE ADDRESS:
              ADDRESSEE: Audrey L. Bartnicki
              STREET: Marshall, Gerstein & Borun
                      6300 Sears Tower, 233 South Wacker Drive
              CITY: Chicago
              STATE: Illinois
              COUNTRY: USA
              ZIP: 60606-6402
        COMPUTER READABLE FORM:
              MEDIUM TYPE: Floppy disk
              COMPUTER: IBM PC compatible
              OPERATING SYSTEM: PC-DOS/MS-DOS
              SOFTWARE: PatentIn Release #1.0, Version #1.25 (EPO)
         CURRENT APPLICATION DATA:
              APPLICATION NUMBER: US/09/104,337A
              FILING DATE: 25-Jun-1998
         PRIOR APPLICATION DATA:
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APPLICATION NUMBER: US 08/350,260
              FILING DATE: 05-DEC-1994
              APPLICATION NUMBER: GB 9110549.4
              FILING DATE: 15-MAY-1991
              APPLICATION NUMBER: GB 9206318.9
              FILING DATE: 24-MAR-1992
              APPLICATION NUMBER: PCT/GB92/00883
              FILING DATE: 15-MAY-1992
              APPLICATION NUMBER: PCT/GB93/00605
              FILING DATE: 24-MAR-1993
              APPLICATION NUMBER: US 08/150,002
              FILING DATE: 31-MAR-1994
              APPLICATION NUMBER: US 08/307,619
              FILING DATE: 16-SEP-1994
        ATTORNEY/AGENT INFORMATION:
              NAME: Bartnicki, Audrey L.
              REGISTRATION NUMBER: 40,499
              REFERENCE/DOCKET NUMBER: 28111/32372A
         TELECOMMUNICATION INFORMATION:
              TELEPHONE: 312-474-6300
    INFORMATION FOR SEQ ID NO: 522:
         SEQUENCE CHARACTERISTICS:
              LENGTH: 11 amino acids
              TYPE: amino acid
              STRANDEDNESS: single
              TOPOLOGY: linear
         SEQUENCE DESCRIPTION: SEQ ID NO: 522:
US-09-104-337A-522
                          27.3%; Score 3; DB 4; Length 11;
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Qу
              111
            2 SRD 4
Db
RESULT 65
US-09-810-873-2
; Sequence 2, Application US/09810873
; Patent No. 6551599
; GENERAL INFORMATION:
  APPLICANT: Mandrell, David
; APPLICANT: Bates, Anna
; APPLICANT: Brandon, David
  TITLE OF INVENTION: Monoclonal Antibodies Against Campylobacter jejuni and
Campylobacter coli
; TITLE OF INVENTION: Outer Membrane Antigens
  FILE REFERENCE: Mandrell
  CURRENT APPLICATION NUMBER: US/09/810,873
  CURRENT FILING DATE: 2001-03-16
; PRIOR APPLICATION NUMBER: 09/277,599
; PRIOR FILING DATE: 1999-03-26
; NUMBER OF SEQ ID NOS: 2
  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 2
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LENGTH: 11
   TYPE: PRT
   ORGANISM: Campylobacter jejuni
   FEATURE:
   NAME/KEY: misc feature
   LOCATION: ()..()
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US-09-810-873-2
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            9 AIK 11
Qу
             7 AIK 9
Db
RESULT 66
US-08-488-446-550
; Sequence 550, Application US/08488446
; Patent No. 6558898
 GENERAL INFORMATION:
    APPLICANT: JOHN N. SIMONS
    APPLICANT: TAMI J. PILOT-MATIAS
    APPLICANT: GEORGE J. DAWSON
APPLICANT: GEORGE G. SCHLAUDER
APPLICANT: SURESH M. DESAI
  APPLICANT: THOMAS P. LEARY
    APPLICANT: ANTHONY SCOTT MUERHOFF
    APPLICANT: JAMES C. ERKER
    APPLICANT: SHERI L. BUIJK
    APPLICANT: ISA K. MUSHAHWAR
    TITLE OF INVENTION: NON-A, NON-B. NON-C, NON-D, NON-E HEPATITIS
    TITLE OF INVENTION: REAGENTS AND METHODS FOR THEIR USE
    NUMBER OF SEQUENCES: 716
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: ABBOTT LABORATORIES D377/AP6D
      STREET: 100 ABBOTT PARK ROAD
      CITY: ABBOTT PARK
      STATE: IL
      COUNTRY: USA
      ZIP: 60064-3500
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/488,446
      FILING DATE:
      CLASSIFICATION:
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US/08/424,550
       FILING DATE:
    ATTORNEY/AGENT INFORMATION:
      NAME: POREMBSKI, PRISCILLA E.
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REGISTRATION NUMBER: 33,207
      REFERENCE/DOCKET NUMBER: 5527.PC.01
;
    TELECOMMUNICATION INFORMATION:
;
      TELEPHONE: 708-937-6365
      TELEFAX: 708-938-2623
  INFORMATION FOR SEQ ID NO: 550:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
    MOLECULE TYPE: protein
US-08-488-446-550
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 Matches
           9 AIK 11
Qу
             Db
           2 AIK 4
RESULT 67
US-08-467-344A-550
; Sequence 550, Application US/08467344A
; Patent No. 6586568
   GENERAL INFORMATION:
        APPLICANT: JOHN N. SIMONS
                   TAMI J. PILOT-MATIAS
                   GEORGE J. DAWSON
                   GEORGE G. SCHLAUDER
                   SURESH M. DESAI
                   THOMAS P. LEARY
                   ANTHONY SCOTT MUERHOFF
                   JAMES C. ERKER
                   SHERI L. BUIJK
                   ISA K. MUSHAHWAR
        TITLE OF INVENTION: NON-A, NON-B. NON-C, NON-D, NON-E HEPATITIS
                            REAGENTS AND METHODS FOR THEIR USE
        NUMBER OF SEQUENCES: 716
        CORRESPONDENCE ADDRESS:
             ADDRESSEE: ABBOTT LABORATORIES D377/AP6D
             STREET: 100 ABBOTT PARK ROAD
             CITY: ABBOTT PARK
             STATE: IL
             COUNTRY: USA
             ZIP: 60064-3500
        COMPUTER READABLE FORM:
             MEDIUM TYPE: Floppy disk
             COMPUTER: IBM PC compatible
             OPERATING SYSTEM: PC-DOS/MS-DOS
             SOFTWARE: PatentIn Release #1.0, Version #1.25
        CURRENT APPLICATION DATA:
             APPLICATION NUMBER: US/08/467,344A
             FILING DATE: 07-Jun-1995
             CLASSIFICATION: <Unknown>
        PRIOR APPLICATION DATA:
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APPLICATION NUMBER: 08/424,550
              FILING DATE: <Unknown>
         ATTORNEY/AGENT INFORMATION:
              NAME: POREMBSKI, PRISCILLA E.
              REGISTRATION NUMBER: 33,207
              REFERENCE/DOCKET NUMBER: 5527.PC.01
         TELECOMMUNICATION INFORMATION:
              TELEPHONE: 708-937-6365
              TELEFAX: 708-938-2623
    INFORMATION FOR SEQ ID NO: 550:
         SEQUENCE CHARACTERISTICS:
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              TYPE: amino acid
              TOPOLOGY: linear
        MOLECULE TYPE: protein
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Qу
             2 AIK 4
RESULT 68
US-09-079-030-55
; Sequence 55, Application US/09079030
; Patent No. 6635623
  GENERAL INFORMATION:
    APPLICANT: Guevera, Jr., Juan G.
    APPLICANT: Hoogeveen, Ron C.
    APPLICANT: Moore, Paul J.
    TITLE OF INVENTION: LIPOPROTEINS AS NUCLEIC ACID DELIVERY
    TITLE OF INVENTION: VECTORS FOR TRANSFECTION OF EUKARYOTIC CELLS
;
    NUMBER OF SEQUENCES: 229
;
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Arnold, White & Durkee
      STREET: P.O. Box 4433
      CITY: Houston
      STATE: Texas
      COUNTRY: USA
      ZIP: 77210
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
       COMPUTER: IBM PC compatible
       OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/09/079,030
;
       FILING DATE: Concurrently Herewith
      CLASSIFICATION:
    ATTORNEY/AGENT INFORMATION:
      NAME: McMillian, Nabeela R.
       REGISTRATION NUMBER: P-43,363
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REFERENCE/DOCKET NUMBER: ARAG:003
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 512/418-3000
      TELEFAX: 512/474-7577
  INFORMATION FOR SEQ ID NO:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS:
      TOPOLOGY: linear
US-09-079-030-55
                         27.3%; Score 3; DB 4; Length 11;
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Qу
             \perp
Db
           4 AIK 6
RESULT 69
US-09-591-694-38
; Sequence 38, Application US/09591694
; Patent No. 6638734
; GENERAL INFORMATION:
 APPLICANT: John C. Reed
 APPLICANT: Shu-ichi Matsuzawa
; TITLE OF INVENTION: Nucleic Acid Encoding Proteins Involved
; TITLE OF INVENTION: in Protein Degradation, Products and Methods Related
Thereto
; FILE REFERENCE: P-LJ 4220
 CURRENT APPLICATION NUMBER: US/09/591,694
  CURRENT FILING DATE: 2000-06-09
; EARLIER APPLICATION NUMBER: US 09/330,517
; EARLIER FILING DATE: 1999-06-11
; NUMBER OF SEQ ID NOS: 49
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 38
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Homo sapien
US-09-591-694-38
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           9 AIK 11
Qу
             \perp
Db
           2 AIK 4
RESULT 70
US-09-535-852-1119
; Sequence 1119, Application US/09535852
; Patent No. 6638911
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; GENERAL INFORMATION:
 APPLICANT: Blachuk, Orest W.
  APPLICANT: Symonds, James M.
  APPLICANT: Gour, Barbara J.
  TITLE OF INVENTION: COMPOUNDS AND EMTHODS FOR MODULATING
  TITLE OF INVENTION: DESMOSOMAL CADHERIN-MEDIATED FUNCTIONS
  FILE REFERENCE: 100086.407C6
  CURRENT APPLICATION NUMBER: US/09/535,852
  CURRENT FILING DATE: 2001-05-21
  NUMBER OF SEQ ID NOS: 2009
 SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 1119
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   FEATURE:
   OTHER INFORMATION: Cyclicized modulating agent comprising
   OTHER INFORMATION: desmoglein-2 cell adhesion recognition sequence
US-09-535-852-1119
                         27.3%; Score 3; DB 4; Length 11;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 1.8e+03;
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Qу
             \Box
           9 ARK 11
RESULT 71
US-09-535-852-1159
; Sequence 1159, Application US/09535852
; Patent No. 6638911
; GENERAL INFORMATION:
; APPLICANT: Blachuk, Orest W.
; APPLICANT: Symonds, James M.
; APPLICANT: Gour, Barbara J.
; TITLE OF INVENTION: COMPOUNDS AND EMTHODS FOR MODULATING
  TITLE OF INVENTION: DESMOSOMAL CADHERIN-MEDIATED FUNCTIONS
 FILE REFERENCE: 100086.407C6
  CURRENT APPLICATION NUMBER: US/09/535,852
  CURRENT FILING DATE: 2001-05-21
  NUMBER OF SEQ ID NOS: 2009
  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 1159
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   OTHER INFORMATION: Cyclicized modulating agent comprising
   OTHER INFORMATION: desmoglein-2 cell adhesion recognition sequence
US-09-535-852-1159
  Query Match
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  Best Local Similarity 100.0%; Pred. No. 1.8e+03;
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1 ARK 3
Qy
             111
            9 ARK 11
Db
RESULT 72
US-08-475-955-56
; Sequence 56, Application US/08475955
; Patent No. 6641813
  GENERAL INFORMATION:
    APPLICANT: Harley, John
    TITLE OF INVENTION: METHODS AND REAGENTS FOR DIAGNOSIS OF
    TITLE OF INVENTION: AUTOANTIBODIES
    NUMBER OF SEQUENCES: 218
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Patrea L. Pabst
      STREET: 2800 One Atlantic Center, 1250 West Peachtree Street
      CITY: Atlanta
      STATE: GA
      COUNTRY: USA
      ZIP: 30309-3450
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/475,955
      FILING DATE: June 7, 1995
      CLASSIFICATION: 424
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: 07/867,819
      FILING DATE: April 13, 1992
      CLASSIFICATION: 424
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: 07/648,205
      FILING DATE: January 31, 1991
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: 07/472,947
      FILING DATE: January 31, 1990
    ATTORNEY/AGENT INFORMATION:
      NAME: Pabst, Patrea L.
      REGISTRATION NUMBER: 31,284
      REFERENCE/DOCKET NUMBER: OMRF114CIP(2)DIV
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (404) - 873 - 8794
      TELEFAX: (404)-873-8795
  INFORMATION FOR SEQ ID NO: 56:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
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FEATURE:

NAME/KEY: Binding-site

LOCATION: 1..8

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RESULT 73
US-09-775-052A-3
; Sequence 3, Application US/09775052A
; Patent No. 6645501
; GENERAL INFORMATION:
  APPLICANT: Dowdy, Steven F.
  TITLE OF INVENTION: ANTI-PATHOGEN SYSTEM AND METHODS OF USE THEREOF
  FILE REFERENCE: 48881/1742
; CURRENT APPLICATION NUMBER: US/09/775,052A
  CURRENT FILING DATE: 2001-12-05
  PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: US/09/208,966
  PRIOR FILING DATE: EARLIER FILING DATE: 1998-12-10
   PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: 60/069,012
  PRIOR FILING DATE: EARLIER FILING DATE: 1997-12-10
  NUMBER OF SEQ ID NOS: 57
  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 3
   LENGTH: 11
   TYPE: PRT
   ORGANISM: human
US-09-775-052A-3
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Qу
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              \Box
Db
            2 ARK 4
RESULT 74
US-09-576-824A-482
; Sequence 482, Application US/09576824A
; Patent No. 6667387
; GENERAL INFORMATION:
; APPLICANT: De Leys, Robert
  TITLE OF INVENTION: PROCESS FOR THE DETERMINATION OF PEPTIDES CORRESPONDING
  TITLE OF INVENTION: TO IMMUNOLOGICALLY IMPORTANT EPITOPES AND THEIR USE IN TITLE OF INVENTION: A PROCESS FOR DETERMINATION OF ANTIBODIES OF
  TITLE OF INVENTION: BIOTINYLATED PEPTIDES CORRESPONDING TO IMMUNOLOGICALLY
IMPORTANT
  TITLE OF INVENTION:
                        EPITOPES, A PROCESS FOR PREPARING THEM AND COMPOSITIONS
  TITLE OF INVENTION: CONTAINING THEM
; FILE REFERENCE: 2752-11
  CURRENT APPLICATION NUMBER: US/09/576,824A
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CURRENT FILING DATE: 2000-05-23
   PRIOR APPLICATION NUMBER: 08/723,425
   PRIOR FILING DATE: 1996-09-30
   PRIOR APPLICATION NUMBER: 09/146,028
  PRIOR FILING DATE: 1993-11-22
  PRIOR APPLICATION NUMBER: PCT/EP93/00517
; PRIOR FILING DATE: 1993-03-08
; PRIOR APPLICATION NUMBER: EP 92400598.6
  PRIOR FILING DATE: 1992-03-06
  NUMBER OF SEQ ID NOS: 600
   SOFTWARE: PatentIn Ver. 2.1
 SEO ID NO 482
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Hepatitis C virus
   FEATURE:
   NAME/KEY: VARIANT
   LOCATION: (1)
   OTHER INFORMATION: Xaa = modified site : when present, represents an
   OTHER INFORMATION: amino acid, amino group, or chemically modified
   OTHER INFORMATION: amino terminus
   NAME/KEY: VARIANT
   LOCATION: (11)
   OTHER INFORMATION: Xaa = modified site : when present, represents an
   OTHER INFORMATION: amino acid, OH-group, NH2-group, or a linkage
   OTHER INFORMATION: involv-ing these two groups
US-09-576-824A-482
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Qу
              111
            1 ARK 3
Db
RESULT 75
US-09-576-824A-546
; Sequence 546, Application US/09576824A
; Patent No. 6667387
; GENERAL INFORMATION:
; APPLICANT: De Leys, Robert
  TITLE OF INVENTION: PROCESS FOR THE DETERMINATION OF PEPTIDES CORRESPONDING
  TITLE OF INVENTION: TO IMMUNOLOGICALLY IMPORTANT EPITOPES AND THEIR USE IN
  TITLE OF INVENTION: A PROCESS FOR DETERMINATION OF ANTIBODIES OF
  TITLE OF INVENTION: BIOTINYLATED PEPTIDES CORRESPONDING TO IMMUNOLOGICALLY
IMPORTANT
  TITLE OF INVENTION: EPITOPES, A PROCESS FOR PREPARING THEM AND COMPOSITIONS
  TITLE OF INVENTION: CONTAINING THEM
  FILE REFERENCE: 2752-11
  CURRENT APPLICATION NUMBER: US/09/576,824A
  CURRENT FILING DATE: 2000-05-23
; PRIOR APPLICATION NUMBER: 08/723,425
; PRIOR FILING DATE: 1996-09-30
; PRIOR APPLICATION NUMBER: 09/146,028
; PRIOR FILING DATE: 1993-11-22
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; PRIOR APPLICATION NUMBER: PCT/EP93/00517
; PRIOR FILING DATE: 1993-03-08
; PRIOR APPLICATION NUMBER: EP 92400598.6
; PRIOR FILING DATE: 1992-03-06
; NUMBER OF SEQ ID NOS: 600
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 546
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Hepatitis C virus
   FEATURE:
   NAME/KEY: VARIANT
   LOCATION: (1)
   OTHER INFORMATION: Xaa = modified site: when present, represents an
   OTHER INFORMATION: amino acid, amino group, or chemically modified
   OTHER INFORMATION: amino terminus
   NAME/KEY: VARIANT
   LOCATION: (11)
   OTHER INFORMATION: Xaa = modified site : when present, represents an
   OTHER INFORMATION: amino acid, OH-group, NH2-group, or a linkage
   OTHER INFORMATION: involv-ing these two groups
US-09-576-824A-546
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 Best Local Similarity 100.0%; Pred. No. 1.8e+03;
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Qy
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           8 RKS 10
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Search completed: April 8, 2004, 15:52:17 Job time : 12.3077 secs

GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd.

OM protein - protein search, using sw model

Run on: April 8, 2004, 15:30:07; Search time 8.61538 Seconds

(without alignments)

122.816 Million cell updates/sec

Title: US-09-787-443A-22

Perfect score: 11

Sequence: 1 ARKSRDMTAIK 11

Scoring table: OLIGO

Gapop 60.0 , Gapext 60.0

Searched: 283366 seqs, 96191526 residues

Word size:

Total number of hits satisfying chosen parameters: 226

Minimum DB seq length: 11

Maximum DB seq length: 11

Post-processing: Listing first 100 summaries

Database : PIR_78:*

1: pir1:*

2: pir2:*

3: pir3:*

4: pir4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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Result	,	Query			•	
No.	Score	Match	Length	DB	ID	Description
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2	2	18.2	11	2	\$32575	ribosomal protein
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4	2	18.2	11	2	A38841	rhodopsin homolog
5	2	18.2	11	2	A26930	ermG leader peptid
6	2	18.2	11	2	B26744	megascoliakinin -
7	2	18.2	11	2	JQ0395	hypothetical prote
8	2	18.2	11	2	S66606	quinoline 2-oxidor
9	2	18.2	11	2	S58244	pyrroloquinoline q
10	2	18.2	11	2	E60691	phycobilisome 8K l
11	2	18.2	11	2	PC2372	58K heat shock pro
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13	2	18.2	11	2	s33519	probable secreted

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	20	2	18.2	11	2	s65395		chemical-sense-rel	
	21	2	18.2	11	2	E57789		gallbladder stone	
	22	2	18.2	11	2	S21727		gamma-interferon-i	
	.23	2	18.2	11	2	PT0249	·	Ig heavy chain CRD	
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	26	2	18.2	11	2	S68637		acetylcholinestera	
	27	2	18.2	11	2	S54347		tubulin beta chain	
	28	2	18.2	11	2	PH1632		Ig H chain V-D-J r	-
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	30	2	18.2	11	2	PH1583		Ig H chain V-D-J r	
	31	2	18.2	11	2	PH1584		Ig H chain V-D-J r	
	32	2	18.2	11	2	PT0217		T-cell receptor be	
	33	2	18.2	11	2	PT0214		T-cell receptor be	
	34	2	18.2	11	2	C38887		T-cell receptor ga	
		2	18.2	11	2	PD0441		translation elonga	
	35				2	PH0929		T-cell receptor be	
	36	2	18.2	11				T-cell receptor be	
	37	2	18.2	11	2	PH0947			
	.38	2	18.2	11	2	T12264		cytochrome-c oxida	
	39	2	18.2	11	2	T12253		cytochrome-c oxida	
	40	2	18.2	11	2	T12244		cytochrome-c oxida	
	41	2	18.2	11	2	T12248		cytochrome-c oxida	
	42	2	18.2	11	4	152708		ELAV-like neuronal	
	43	2	18.2	11	4	S52252		hypothetical prote	
	44	1	9.1	11	1	XAVIBH		bradykinin-potenti	
•	45	1	9.1	11	1	XASNBA		bradykinin-potent <u>i</u>	
	46	1	9.1	11	1	ECLQ2M		tachykinin II - mi	
	47	1	9.1	11	1	SPHO		substance P - hors	
	48	1	9.1	11	1	EOOCC		eledoisin - curled	
	49	1	9.1	11	1	A60654		substance P - guin	•
	50	1	9.1	11	1	EOOC		eledoisin - musky	
	51	1	9.1	11	1	GMROL		leucosulfakinin -	
	52	1	9.1	11	1	LFTWWE		probable trpEG lea	
	53	1	9.1	11	2	S66196		alcohol dehydrogen	
	54	1	9.1	11	2	G42762		proteasome endopep	
	55	1	9.1	11	2	A33917		dihydroorotase (EC	
	56	1	9.1	11	2	B49164		chromogranin-B - r	
	57	1	9.1	$\frac{11}{11}$	2	JN0023		substance P - chic	
	5 <i>1</i> 58		9.1	11	2	PQ0682		photosystem I 17.5	
		1			2	S00616		parasporal crystal	
	59 60	1	9.1	11				rhlR protein - Pse	
	60	1	9.1	11	2	C53652		-	
	61	1	9.1	11	2	S09074		cytochrome P450-4b	
	62	1	9.1	11	2	A57458		gene Gax protein -	
	63	1	9.1	11	2	D60409		kassinin-like pept	
	64	1	9.1	11	2	F60409		substance P-like p	
	65	1	9.1	11	2	E60409		substance P-like p	
	66	1	9.1	11	2	YHRT		morphogenetic neur	
	67	. 1	9.1	11	2	YHHU		morphogenetic neur	
	68	1	9.1	11	2	YHBO		morphogenetic neur	•
	69	1	9.1	11	2	YHXAE		morphogenetic neur	
	70	1	9.1	11	2	YHJFHY		morphogenetic neur	

71	1	9.1	11	2	A61365			phyllokinin - Rohd
72	1	9.1	11	2	S23308			substance P - rain
73	1	9.1	11	2	s23306			substance P - Atla
74	1	9.1	11	2	B60409			kassinin-like pept
75	1	9.1	11	2	C60409	•	•	kassinin-like pept
76	1	9.1	11	2	s07203			uperolein - frog (
77	1	9.1	11	2	S07207			Crinia-angiotensin
78	1	9.1	11	2	S07201			physalaemin – frog
79	1	9.1	11	2	A61033			ranatachykinin A -
80	. 1	9.1	11	2	D61033			ranatachykinin D -
81	1	9.1	11	2	S42449			ant1 protein - pha
82	1	9.1	11	2	B58501			24K kidney and bla
83	1	9.1	11	2	D58502			27K bile and gallb
84	1	9.1	11	2	A58502			38K kidney stone p
85	1	9.1	11	2	C58501			42K bile stone pro
86	1	9.1	11	2	F58501			43.5K bile stone p
87	1	9.1	11	2	PQ0231			beta-glucosidase (
88	1	9.1	11	2	S04875			nifS protein - Bra
89	1	9.1	11	2	I41138			acetyl ornithine d
90	1	9.1	11	2	S42587			celF protein - Esc
91	1	9.1	11	2	s35490			type II site-speci
92	1	9.1	11	2	S21127			precorrin methyltr
93	1	9.1	11	2	s70720			trigger factor hom
94	1	9.1	11	2	s33782			acetolactate synth
95	1	9.1	11	2	в39853			LuxC protein - Pho
96	1	9.1	. 11	2	A58838			hemolysin - Porphy
97	1	9.1	11	2	B43669			hypothetical prote
98	1	9.1	11	2	D60691			phycobilisome 9K l
99	1	9.1	11	2	PC2330			cycloinulooligosac
100	1	9.1	11	2	B41835			translation elonga

ALIGNMENTS

```
RESULT 1
PH0919
T-cell receptor beta chain V-D-J region (isolate 5) - rat (fragment)
C; Species: Rattus norvegicus (Norway rat)
C;Date: 09-Oct-1992 #sequence_revision 09-Oct-1992 #text_change 30-May-1997
C; Accession: PH0919
R; Gold, D.P.; Offner, H.; Sun, D.; Wiley, S.; Vandenbark, A.A.; Wilson, D.B.
J. Exp. Med. 174, 1467-1476, 1991
A; Title: Analysis of T cell receptor beta chains in Lewis rats with experimental
allergic encephalomyelitis: conserved complementarity determining region 3.
A; Reference number: PH0891; MUID: 92078857; PMID: 1836012
A; Accession: PH0919
A; Molecule type: mRNA
A; Residues: 1-11 <GOL>
A; Experimental source: concanavalin A-activated lymphoblast
A; Note: the authors translated the codon CAG for residue 11 as Glu
C; Keywords: T-cell receptor
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 2.1e+03;
  Best Local Similarity
                                                                              0;
                                                   0; Indels
                                                                  0; Gaps
             3; Conservative 0; Mismatches
```

```
3 SRD 5
Db
RESULT 2
S32575
ribosomal protein S2, plastid - squawroot plastid (fragment)
C; Species: plastid Conopholis americana (squawroot)
C;Date: 19-Mar-1997 #sequence_revision 25-Apr-1997 #text change 13-Aug-1999
C; Accession: S32575
R; Taylor, G.W.; Wolfe, K.H.; Morden, C.W.; dePamphilis, C.W.; Palmer, J.D.
Curr. Genet. 20, 515-518, 1991
A; Title: Lack of a functional plastid tRNA(Cys) gene is associated with loss of
photosynthesis in a lineage of parasitic plants.
A; Reference number: $32575; MUID: 92145776; PMID: 1723664
A; Accession: S32575
A; Status: preliminary
A; Molecule type: DNA
A; Residues: 1-11 <TAY>
A; Cross-references: EMBL: X64567; NID: g11275; PIDN: CAA45868.1; PID: g11276
C; Genetics:
A; Gene: rps2
A; Genome: plastid
C; Superfamily: Escherichia coli ribosomal protein S2
C; Keywords: plastid; protein biosynthesis; ribosome
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 2.6e+04;
  Best Local Similarity
                               0; Mismatches
                                                                   0; Gaps
                                                                               0;
             2; Conservative
                                                    0;
                                                        Indels
  Matches
            7 MT 8
Qy
              11
            1 MT 2
Db
RESULT 3
A40693
transgelin - sheep (fragment)
C; Species: Ovis orientalis aries, Ovis ammon aries (domestic sheep)
C;Date: 03-May-1994 #sequence_revision 03-May-1994 #text_change 31-Oct-1997
C; Accession: A40693
R; Shapland, C.; Hsuan, J.J.; Totty, N.F.; Lawson, D.
J. Cell Biol. 121, 1065-1073, 1993
A; Title: Purification and properties of transgelin: a transformation and shape
change sensitive actin-gelling protein.
A; Reference number: A40693; MUID: 93273790; PMID: 8501116
A; Accession: A40693
A; Molecule type: protein
A; Residues: 1-11 <SHA>
A; Experimental source: aorta
C; Comment: This protein gels actin and is down regulated by transformation or
loss of cell adherence in culture.
C; Superfamily: smooth muscle protein SM22; calponin repeat homology; smooth
muscle protein SM22 homology
C; Keywords: actin binding; cytoskeleton
```

4 SRD 6

Qy

```
100.0%; Pred. No. 2.6e+04;
  Best Local Similarity
                                                                              0;
            2; Conservative 0; Mismatches
                                                 0; Indels
                                                                 0; Gaps
            4 SR 5
Qу
              11
            8 SR 9
Db
RESULT 4
A38841
rhodopsin homolog - squid (Watasenia scintillans) (fragment)
N; Alternate names: visual pigment protein
C; Species: Watasenia scintillans (sparkling enope)
C;Date: 17-Jul-1992 #sequence revision 17-Jul-1992 #text change 31-Oct-1997
C; Accession: A38841
R; Seidou, M.; Kubota, I.; Hiraki, K.; Kito, Y.
Biochim. Biophys. Acta 957, 318-321, 1988
A; Title: Amino acid sequence of the retinal binding site of squid visual
pigment.
A; Reference number: PT0063; MUID:89051045; PMID:3191148
A; Accession: A38841
A; Molecule type: protein
A; Residues: 1-11 <SEI>
C; Superfamily: vertebrate rhodopsin
C; Keywords: chromoprotein; retinal
F; 3/Binding site: retinal (Lys) (covalent) #status experimental
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 2.6e+04;
  Best Local Similarity
                                                                              0;
                                0; Mismatches
                                                  0; Indels
                                                                 0; Gaps
             2; Conservative
            9 AI 10
Qy
            6 AI 7
Db
RESULT 5
A26930
ermG leader peptide 1 - Bacillus sphaericus
C; Species: Bacillus sphaericus
C;Date: 08-Mar-1989 #sequence revision 08-Mar-1989 #text change 24-Sep-1999
C; Accession: A26930
R; Monod, M.; Mohan, S.; Dubnau, D.
J. Bacteriol. 169, 340-350, 1987
A; Title: Cloning and analysis of ermG, a new macrolide-lincosamide-streptogramin
B resistance element from Bacillus sphaericus.
A; Reference number: A91840; MUID: 87083389; PMID: 3025178
A; Accession: A26930
A; Molecule type: DNA
A; Residues: 1-11 <MON>
A; Cross-references: GB:M15332; NID:g142881; PIDN:AAA22417.1; PID:g142882
C; Superfamily: unassigned leader peptides
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 2.6e+04;
                                                    0; Indels
                                                                      Gaps
                                                                              0;
  Matches
             2; Conservative
                                0; Mismatches
```

18.2%; Score 2; DB 2; Length 11;

Query Match

```
5 RD 6
Qу
             -11
            7 RD 8
Db
RESULT 6
B26744
megascoliakinin - garden dagger wasp
N; Alternate names: 6-Thr-bradykinin-Lys-Ala
C; Species: Megascolia flavifrons (garden dagger wasp)
C;Date: 08-Mar-1989 #sequence revision 08-Mar-1989 #text change 18-Aug-2000
C; Accession: B26744; A28609
R; Yasuhara, T.; Mantel, P.; Nakajima, T.; Piek, T.
Toxicon 25, 527-535, 1987
A; Title: Two kinins isolated from an extract of the venom reservoirs of the
solitary wasp Megascolia flavifrons.
A; Reference number: A94322; MUID: 87293024; PMID: 3617088
A; Accession: B26744
A; Molecule type: protein
A; Residues: 1-11 <YAS>
R; Nakajima, T.; Piek, T.; Yashuara, T.; Mantel, P.
Toxicon 26, 34, 1988
A; Title: Two kinins isolated from the venom of Megascolia flavifrons.
A; Reference number: A28609
A:Accession: A28609
A; Molecule type: protein
A; Residues: 1-11 < NAK>
C; Superfamily: unassigned animal peptides
C; Keywords: bradykinin; presynaptic neurotoxin; venom
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 2.6e+04;
                                                                               0;
                                                   0; Indels
                                                                       Gaps
            2; Conservative
                                 0; Mismatches
  Matches
            2 RK 3
Qу
              -11
            9 RK 10
Dh
RESULT 7
JQ0395
hypothetical protein (nodB 3' region) - Azorhizobium caulinodans
N; Alternate names: hypothetical 1.4K protein
C; Species: Azorhizobium caulinodans
A; Note: host Sesbania rostrata
C;Date: 07-Sep-1990 #sequence_revision 07-Sep-1990 #text change 03-Feb-1994
C; Accession: JQ0395
R; Goethals, K.; Gao, M.; Tomekpe, K.; Van Montagu, M.; Holsters, M.
Mol. Gen. Genet. 219, 289-298, 1989
A; Title: Common nodABC genes in Nod locus 1 of Azorhizobium caulinodans:
nucleotide sequence and plant-inducible expression.
A; Reference number: JQ0393; MUID: 90136519; PMID: 2615763
A; Accession: JQ0395
A; Molecule type: DNA
A; Residues: 1-11 <GOE>
```

A: Cross-references: GB:L18897

```
18.2%; Score 2; DB 2; Length 11;
 Query Match
                          100.0%; Pred. No. 2.6e+04;
  Best Local Similarity
                                                    0;
                                                        Indels
                                                                      Gaps
                                                                               0;
                                 0; Mismatches
            2; Conservative
            1 AR 2
Qу
              11
           10 AR 11
Db
RESULT 8
S66606
quinoline 2-oxidoreductase alpha chain - Comamonas testosteroni (fragment)
C; Species: Comamonas testosteroni
C;Date: 15-Feb-1997 #sequence_revision 13-Mar-1997 #text_change 17-Mar-1999
C; Accession: S66606
R;Schach, S.; Tshisuaka, B.; Fetzner, S.; Lingens, F.
Eur. J. Biochem. 232, 536-544, 1995
A; Title: Quinoline 2-oxidoreductase and 2-oxo-1, 2-dihydroquinoline 5, 6-
dioxygenase from Comamonas testosteroni 63. The first two enzymes in quinoline
and 3-methylquinoline degradation.
A; Reference number: S66606; MUID: 96035889; PMID: 7556204
A:Accession: S66606
A; Molecule type: protein
A; Residues: 1-11 <SCH>
A; Experimental source: strain 63
                           18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 2.6e+04;
  Best Local Similarity
                                                                               0;
                                                                   0;
                                                                       Gaps
             2; Conservative
                                 0; Mismatches
                                                    0;
                                                        Indels
            3 KS 4
Qy
              \mathbf{I}
            2 KS 3
Db
RESULT 9
S58244
pyrroloquinoline quinone synthesis C - Pseudomonas fluorescens (fragment)
C; Species: Pseudomonas fluorescens
C;Date: 13-Jan-1996 #sequence_revision 01-Mar-1996 #text change 08-Oct-1999
C; Accession: S58244
R; Schnider, U.; Keel, C.; Defago, G.; Haas, D.
submitted to the EMBL Data Library, May 1995
A; Description: Tn5-directed cloning of pqq genes from Pseudomonas fluorescens
CHAO: their involvement in the production of the antibiotic pyoluteorin.
A; Reference number: S58239
A; Accession: S58244
A; Status: preliminary
A; Molecule type: DNA
A; Residues: 1-11 <SCH>
A; Cross-references: EMBL: X87299; NID: g929799; PIDN: CAA60734.1; PID: g929806
                                   Score 2; DB 2; Length 11;
                           18.2%;
  Query Match
                           100.0%; Pred. No. 2.6e+04;
  Best Local Similarity
                                                                               0;
                                                    0; Indels
                                                                       Gaps
             2; Conservative
                                  0; Mismatches
  Matches
```

A; Experimental source: strain ORS571

```
7 MT 8
Qy
              | | |
            1 MT 2
Db
RESULT 10
E60691
phycobilisome 8K linker protein - Synechococcus sp. (PCC 7002) (fragment)
C; Species: Synechococcus sp.
C;Date: 14-May-1993 #sequence_revision 14-May-1993 #text_change 07-May-1999
C; Accession: E60691
R; Bryant, D.A.; de Lorimier, R.; Guglielmi, G.; Stevens Jr., S.E.
Arch. Microbiol. 153, 550-560, 1990
A; Title: Structural and compositional analyses of the phycobilisomes of
Synechococcus sp. PCC 7002. Analyses of the wild-type strain and a phycocyanin-
less mutant constructed by interposon mutagenesis.
A; Reference number: A60691; MUID: 90314662; PMID: 2164365
A; Accession: E60691
A; Molecule type: protein
A; Residues: 1-11 <BRY>
C; Comment: This protein, one of the eleven components detected in this species
of the phycobilisome that helps to trap light energy for photosystem II, does
not carry a chromophore.
C; Keywords: photosystem II
                           18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 2.6e+04;
  Best Local Similarity
                                                                               0;
             2; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
            8 TA 9
Qу
              11
            7 TA 8
Db
RESULT 11
PC2372
58K heat shock protein groEL [similarity] - Bacillus cereus (strain ts-4)
C; Species: Bacillus cereus
C;Date: 20-Apr-2000 #sequence_revision 20-Apr-2000 #text change 20-Apr-2000
C; Accession: PC2372
R; Matsuno, K.; Miyamoto, T.; Yamaguchi, K.; Sayed, M.A.; Kajiwara, T.; Hatano,
s.
Biosci. Biotechnol. Biochem. 59, 231-235, 1995
A; Title: Identification of DNA-binding proteins changed after induction of
sporulation in Bacillus cereus.
A; Reference number: PC2369; MUID: 95218265; PMID: 7766022
A; Accession: PC2372
A; Status: preliminary
A; Molecule type: protein
A; Residues: 1-11 <MAS>
C; Keywords: heat shock; molecular chaperone; stress-induced protein
                           18.2%; Score 2; DB 2; Length 11;
  Query Match
  Best Local Similarity
                           100.0%; Pred. No. 2.6e+04;
                                                     0; Indels
                                                                       Gaps
                                                                               0;
             2; Conservative
                                  0; Mismatches
```

Matches

```
1 AR 2
Qу
              \mathbf{I}
           10 AR 11
Db
RESULT 12
A44755
20alpha-hydroxysteroid dehydrogenase (EC 1.1.1.149) - Clostridium scindens
(fragment)
C; Species: Clostridium scindens
C;Date: 12-Mar-1993 #sequence_revision 12-Mar-1993 #text_change 17-Mar-1999
C; Accession: A44755
R; Krafft, A.E.; Hylemon, P.B.
J. Bacteriol. 171, 2925-2932, 1989
A; Title: Purification and characterization of a novel form of 20alpha-
hydroxysteroid dehydrogenase from Clostridium scindens.
A; Reference number: A44755; MUID: 89255043; PMID: 2722736
A; Accession: A44755
A; Molecule type: protein
A; Residues: 1-11 < KRA>
C; Comment: This enzyme was purified to homogeneity and shown to have 20alpha
hydroxysteroid dehydrogenase activity in the presence of NADH or NADPH. The
enzyme as purified lacked glyceraldehyde-3-phosphate dehydrogenase (GAPDH)
activity although the fragment shows near identify to known GAPDH sequences.
C; Keywords: homotetramer; NAD; NADP; oxidoreductase
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 2.6e+04;
  Best Local Similarity
                                                                               0;
             2; Conservative
                               0; Mismatches
                                                    0; Indels
                                                                      Gaps
            9 AI 10
Qy
              - 1 1
            5 AI 6
Db
RESULT 13
S33519
probable secreted protein - Acholeplasma laidlawii (fragment)
C; Species: Acholeplasma laidlawii
C;Date: 06-Jan-1995 #sequence_revision 06-Jan-1995 #text change 22-Oct-1999
C; Accession: S33519
R; Boyer, M.J.; Jarhede, T.K.; Tegman, V.; Wieslander, A.
submitted to the EMBL Data Library, June 1993
A; Description: Sequence regions from Acholeplasma laidlawii which restore export
of beta-lactamase in Escherichia coli.
A; Reference number: S33518
A; Accession: S33519
A; Status: preliminary
A; Molecule type: DNA
A; Residues: 1-11 <BOY>
A;Cross-references: EMBL:Z22875; NID:g311706; PIDN:CAA80495.1; PID:g311708
                           18.2%; Score 2; DB 2; Length 11;
  Query Match
                           100.0%; Pred. No. 2.6e+04;
  Best Local Similarity
                                                                               0;
                                                  0; Indels
                                                                   0; Gaps
             2: Conservative
                                  0; Mismatches
  Matches
```

```
7 MT 8
Db
RESULT 14
G61497
seed protein ws-23 - winged bean (fragment)
C; Species: Psophocarpus tetragonolobus (winged bean)
C;Date: 07-Oct-1994 #sequence revision 07-Oct-1994 #text_change 07-Oct-1994
C; Accession: G61497
R; Hirano, H.
J. Protein Chem. 8, 115-130, 1989
A; Title: Microsequence analysis of winged bean seed proteins electroblotted from
two-dimensional gel.
A; Reference number: A61491; MUID: 89351606; PMID: 2765119
A; Accession: G61497
A; Status: preliminary
A; Molecule type: protein
A; Residues: 1-11 <HIR>
C; Keywords: glycoprotein; seed
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 2.6e+04;
  Best Local Similarity
                                                                              0;
                                 0; Mismatches
                                                    0; Indels
                                                                      Gaps
            2; Conservative
  Matches
            3 KS 4
Qγ
              1.1
            2 KS 3
Db
RESULT 15
PC4267
ribosomal protein L12.1 - rice (fragment)
C; Species: Oryza sativa (rice)
C;Date: 28-May-1997 #sequence_revision 18-Jul-1997 #text_change 18-Jul-1997
C; Accession: PC4267
R; Kawakami, T.; Kamo, M.; Chen, M.C.; Tsugita, A.
submitted to JIPID, April 1997
A; Reference number: PC4267
A; Accession: PC4267
A; Molecule type: protein
A; Residues: 1-11 <KAW>
A; Experimental source: strain Japonica Nihonbare
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 2.6e+04;
  Best Local Similarity
                               0; Mismatches
                                                                               0;
                                                                  0; Gaps
                                                   0; Indels
             2; Conservative
            8 TA 9
Qу
              \Pi
            2 TA 3
RESULT 16
transforming protein (Ddras) - slime mold (Dictyostelium discoideum) (fragment)
```

7 MT 8

Qy

```
C:Species: Dictyostelium discoideum
C;Date: 18-Oct-1991 #sequence revision 18-Oct-1991 #text change 30-Sep-1993
C; Accession: A38590
R; Esch, R.K.; Firtel, R.A.
Genes Dev. 5, 9-21, 1991
A; Title: cAMP and cell sorting control the spatial expression of a
developmentally essential cell-type-specific ras gene in Dictyostelium.
A; Reference number: A38590; MUID: 91115102; PMID: 1703508
A:Accession: A38590
A;Status: preliminary
A; Molecule type: DNA
A; Residues: 1-11 <ESC>
A;Cross-references: GB:Z11804; GB:K02114; GB:X58190
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 2.6e+04;
  Best Local Similarity
                                                                              0;
            2; Conservative 0; Mismatches
                                                  0; Indels
                                                                  0; Gaps
            7 MT 8
QУ
              11
            1 MT 2
RESULT 17
A34135
DNA-binding protein p - Crithidia fasciculata mitochondrion (fragment)
C; Species: mitochondrion Crithidia fasciculata
C; Date: 30-Sep-1991 #sequence revision 30-Sep-1991 #text_change 07-Dec-1999
C; Accession: A34135
R:Tittawella, I.
FEBS Lett. 260, 57-61, 1990
A; Title: Kinetoplast DNA-aggregating proteins from the parasitic protozoan
Crithidia fasciculata.
A; Reference number: A34135
A; Accession: A34135
A; Molecule type: protein
A; Residues: 1-11 <TIT>
C; Genetics:
A; Genome: mitochondrion
A; Genetic code: SGC6
C; Keywords: mitochondrion
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 2.6e+04;
  Best Local Similarity
                                                                               0;
                               0; Mismatches 0; Indels
                                                                  0;
                                                                      Gaps
            2; Conservative
  Matches
            2 RK 3
Qу
              \perp
            8 RK 9
Db
RESULT 18
A61512
variant surface glycoprotein MITat 1.7 - Trypanosoma brucei (fragment)
C; Species: Trypanosoma brucei
C;Date: 28-Oct-1994 #sequence_revision 28-Oct-1994 #text_change 07-May-1999
C; Accession: A61512
```

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R; Holder, A.A.; Cross, G.A.M.
Mol. Biochem. Parasitol. 2, 135-150, 1981
A; Title: Glycopeptides from variant surface glycoproteins of Trypanosoma brucei.
C-terminal location of antigenically cross-reacting carbohydrate moieties.
A; Reference number: A61512; MUID: 81172836; PMID: 6163983
A; Accession: A61512
A; Status: preliminary
A; Molecule type: protein
A: Residues: 1-11 <HOL>
C; Keywords: glycoprotein
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 2.6e+04;
  Best Local Similarity
                                                    0; Indels
                                                                   0; Gaps
                                                                               0;
                                 0; Mismatches
            2; Conservative
            8 TA 9
Qy
              | | |
            2 TA 3
Db
RESULT 19
S05002
corazonin - American cockroach
C: Species: Periplaneta americana (American cockroach)
C;Date: 07-Sep-1990 #sequence revision 09-Apr-1998 #text_change 09-Apr-1998
C; Accession: S05002
R; Veenstra, J.A.
FEBS Lett. 250, 231-234, 1989
A; Title: Isolation and structure of corazonin, a cardioactive peptide from the
american cockroach.
A; Reference number: S05002; MUID: 89325572; PMID: 2753132
A; Accession: S05002
A; Molecule type: protein
A; Residues: 1-11 <VEE>
C; Keywords: amidated carboxyl end; neuropeptide; pyroglutamic acid
F; 1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
F;11/Modified site: amidated carboxyl end (Asn) #status experimental
                           18.2%; Score 2; DB 2; Length 11;
  Query Match
  Best Local Similarity
                           100.0%; Pred. No. 2.6e+04;
                                                                               0;
                                                                   0;
                                                                       Gaps
             2; Conservative
                                  0; Mismatches
                                                        Indels
  Matches
            4 SR 5
Qу
               \mathbf{I}
            6 SR 7
Db
RESULT 20
S65395
chemical-sense-related lipophilic-ligand-binding protein - fruit fly (Drosophila
melanogaster) (fragment)
C; Species: Drosophila melanogaster
C;Date: 28-Oct-1996 #sequence_revision 13-Mar-1997 #text_change 07-May-1999
C; Accession: S65395
R;Ozaki, M.; Morisaki, K.; Idei, W.; Ozaki, K.; Tokunaga, F.
Eur. J. Biochem. 230, 298-308, 1995
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A; Title: A putative lipophilic stimulant carrier protein commonly found in the
taste and olfactory systems. A unique member of the pheromone-binding protein
superfamily.
A; Reference number: S65394; MUID: 95324537; PMID: 7601113
A: Accession: S65395
A; Status: preliminary
A; Molecule type: protein
A: Residues: 1-11 <OZA>
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 2.6e+04;
  Best Local Similarity
                                                                               0;
                                                       Indels
                                                                      Gaps
            2; Conservative
                                 0; Mismatches
                                                    0;
            5 RD 6
Qу
              i i
            6 RD 7
Db
RESULT 21
E57789
gallbladder stone matrix protein, 25K - human (fragment)
C; Species: Homo sapiens (man)
C;Date: 23-Feb-1996 #sequence revision 23-Feb-1996 #text change 23-Feb-1996
C; Accession: E57789
R; Binette, J.P.; Binette, M.B.
submitted to the Protein Sequence Database, February 1996
A; Description: The proteins of gallbladder stones.
A; Reference number: A57789
A; Accession: E57789
A; Status: preliminary
A; Molecule type: protein
A; Residues: 1-11 <BIN>
                           18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 2.6e+04;
  Best Local Similarity
                                                                               0;
                                                                      Gaps
             2; Conservative
                                 0; Mismatches
                                                   0;
                                                       Indels
  Matches
            2 RK 3
Qу
              11
            2 RK 3
RESULT 22
S21727
gamma-interferon-induced protein IP-30 precursor - human (fragment)
C; Species: Homo sapiens (man)
C;Date: 22-Nov-1993 #sequence revision 13-Mar-1997 #text change 13-Mar-1997
C; Accession: S21727
R; Wei, M.L.; Cresswell, P.
Nature 356, 443-446, 1992
A; Title: HLA-A2 molecules in an antigen-processing mutant cell contain signal
sequence-derived peptides.
A; Reference number: S21727; MUID:92212461; PMID:1557127
A:Accession: S21727
A; Status: preliminary
A; Molecule type: protein
A; Residues: 1-11 <WEI>
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18.2%; Score 2; DB 2; Length 11;
                         100.0%; Pred. No. 2.6e+04;
 Best Local Similarity
                                                                 0; Gaps
                                                                             0;
                              0; Mismatches
                                                0;
                                                      Indels
            2; Conservative
 Matches
            8 TA 9
Qу
             11
           7 TA 8
Db
RESULT 23
PT0249
Ig heavy chain CRD3 region (clone 2-109A) - human (fragment)
C; Species: Homo sapiens (man)
C;Date: 30-Sep-1993 #sequence_revision 30-Sep-1993 #text_change 16-Aug-1996
C; Accession: PT0249
R; Yamada, M.; Wasserman, R.; Reichard, B.A.; Shane, S.; Caton, A.J.; Rovera, G.
J. Exp. Med. 173, 395-407, 1991
A; Title: Preferential utilization of specific immunoglobulin heavy chain
diversity and joining segments in adult human peripheral blood B lymphocytes.
A; Reference number: PT0222; MUID: 91108337; PMID: 1899102
A; Accession: PT0249
A; Molecule type: DNA
A; Residues: 1-11 < YAM>
A; Experimental source: B lymphocyte
C: Keywords: heterotetramer; immunoglobulin
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 2.6e+04;
  Best Local Similarity
                                                                             0;
                              0; Mismatches
                                                 0; Indels
                                                                 0; Gaps
            2; Conservative
 Matches
            5 RD 6
Qу
              11
            7 RD 8
Db
RESULT 24
PT0273
Ig heavy chain CRD3 region (clone 3-109A) - human (fragment)
C; Species: Homo sapiens (man)
C;Date: 30-Sep-1993 #sequence revision 30-Sep-1993 #text change 16-Aug-1996
C; Accession: PT0273
R; Yamada, M.; Wasserman, R.; Reichard, B.A.; Shane, S.; Caton, A.J.; Rovera, G.
J. Exp. Med. 173, 395-407, 1991
A; Title: Preferential utilization of specific immunoglobulin heavy chain
diversity and joining segments in adult human peripheral blood B lymphocytes.
A; Reference number: PT0222; MUID: 91108337; PMID: 1899102
A; Accession: PT0273
A; Molecule type: DNA
A; Residues: 1-11 <YAM>
A; Experimental source: B lymphocyte
C; Keywords: heterotetramer; immunoglobulin
                        18.2%; Score 2; DB 2; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.6e+04;
                                                                              0;
                                                                 0; Gaps
             2; Conservative
                                 0; Mismatches
                                                   0; Indels
  Matches
```

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4 SR 5
QУ
            2 SR 3
Db
RESULT 25
S13279
Ile-Ser-bradykinin - human (fragment)
N; Alternate names: T-kinin
C; Species: Homo sapiens (man)
C;Date: 02-Dec-1993 #sequence_revision 13-Mar-1997 #text change 24-Jul-1998
C; Accession: S13279
R; Wunderer, G.; Walter, I.; Eschenbacher, B.; Lang, M.; Kellermann, J.;
Kindermann, G.
Biol. Chem. Hoppe-Seyler 371, 977-981, 1990
A; Title: Ile-Ser-bradykinin is an aberrant permeability factor in various human
malignant effusions.
A; Reference number: S13279; MUID: 91166748; PMID: 2076202
A; Accession: S13279
A; Molecule type: protein
A; Residues: 1-11 <WUN>
C; Keywords: bradykinin
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.6e+04;
             2; Conservative 0; Mismatches
                                                    0; Indels
                                                                      Gaps
                                                                               0;
            4 SR 5
Qy
              \perp
            2 SR 3
Db
RESULT 26
S68637
acetylcholinesterase (EC 3.1.1.7) P chain - bovine (fragment)
C; Species: Bos primigenius taurus (cattle)
C;Date: 04-Dec-1997 #sequence revision 04-Dec-1997 #text change 30-Jan-1998
C; Accession: S68637
R; Boschetti, N.; Brodbeck, U.
FEBS Lett. 380, 133-136, 1996
A; Title: The membrane anchor of mammalian brain acetylcholinesterase consists of
a single glycosylated protein of 22 kDa.
A; Reference number: S68637; MUID: 96181683; PMID: 8603722
A; Accession: S68637
A; Molecule type: protein
A; Residues: 1-11 <BOS>
A; Experimental source: brain
C; Keywords: carboxylic ester hydrolase; glycoprotein; membrane protein
                           18.2%; Score 2; DB 2; Length 11;
  Query Match
                           100.0%; Pred. No. 2.6e+04;
  Best Local Similarity
                                                                               0;
                                                                   0; Gaps
                                                    0;
                                                        Indels
  Matches
             2; Conservative
                               0; Mismatches
            3 KS 4
Qу
              11
Db
            4 KS 5
```

```
RESULT 27
S54347
tubulin beta chain - bovine (fragment)
C; Species: Bos primigenius taurus (cattle)
C;Date: 27-Oct-1995 #sequence revision 30-Jan-1998 #text change 07-May-1999
C; Accession: S54347
R;Okazaki, K.; Obata, N.H.; Inoue, S.; Hidaka, H.
Biochem. J. 306, 551-555, 1995
A; Title: S100-beta is a target protein of neurocalcin delta, an abundant isoform
in glial cells.
A; Reference number: S54343; MUID: 95194333; PMID: 7887910
A; Accession: S54347
A; Molecule type: protein
A; Residues: 1-11 <OKA>
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 2.6e+04;
  Best Local Similarity
                                                                  0; Gaps
                                                                              0;
                               0; Mismatches 0; Indels
            2; Conservative
  Matches
            9 AI 10
Qу
              \perp
            6 AI 7
Db
RESULT 28
PH1632
Ig H chain V-D-J region (clone B-less 209) - mouse (fragment)
C; Species: Mus musculus (house mouse)
C;Date: 02-Jun-1994 #sequence_revision 02-Jun-1994 #text_change 17-Mar-1999
C; Accession: PH1632
R; Levinson, D.A.; Campos-Torres, J.; Leder, P.
J. Exp. Med. 178, 317-329, 1993
A; Title: Molecular characterization of transgene-induced immunodeficiency in B-
less mice using a novel quantitative limiting dilution polymerase chain reaction
method.
A; Reference number: PH1580; MUID: 93301609; PMID: 8315387
A; Accession: PH1632
A; Molecule type: DNA
A; Residues: 1-11 <LEV>
A: Experimental source: bone marrow pre-B lymphocyte
C; Keywords: immunoglobulin
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 2.6e+04;
  Best Local Similarity
                                0; Mismatches
                                                  0; Indels
                                                                  0; Gaps
                                                                               0;
            2; Conservative
  Matches
            1 AR 2
Qу
              -1-1
            2 AR 3
Db
RESULT 29
PH1600
Ig H chain V-D-J region (wild-type clone 310) - mouse (fragment)
C; Species: Mus musculus (house mouse)
C;Date: 02-Jun-1994 #sequence_revision 02-Jun-1994 #text change 17-Mar-1999
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C:Accession: PH1600
R; Levinson, D.A.; Campos-Torres, J.; Leder, P.
J. Exp. Med. 178, 317-329, 1993
A; Title: Molecular characterization of transgene-induced immunodeficiency in B-
less mice using a novel quantitative limiting dilution polymerase chain reaction
method.
A; Reference number: PH1580; MUID: 93301609; PMID: 8315387
A; Accession: PH1600
A; Molecule type: DNA
A; Residues: 1-11 <LEV>
A; Experimental source: bone marrow pre-B lymphocyte
C; Keywords: immunoglobulin
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 2.6e+04;
  Best Local Similarity
                                                                              0;
                               0; Mismatches
                                                   0;
                                                       Indels
                                                                      Gaps
             2; Conservative
  Matches
            1 AR 2
Qу
              11
            2 AR 3
Db
RESULT 30
PH1583
Ig H chain V-D-J region (wild-type clone 6) - mouse (fragment)
C: Species: Mus musculus (house mouse)
C;Date: 02-Jun-1994 #sequence_revision 02-Jun-1994 #text_change 17-Mar-1999
C; Accession: PH1583
R; Levinson, D.A.; Campos-Torres, J.; Leder, P.
J. Exp. Med. 178, 317-329, 1993
A; Title: Molecular characterization of transgene-induced immunodeficiency in B-
less mice using a novel quantitative limiting dilution polymerase chain reaction
method.
A; Reference number: PH1580; MUID: 93301609; PMID: 8315387
A; Accession: PH1583
A; Molecule type: DNA
A; Residues: 1-11 <LEV>
A; Experimental source: bone marrow pre-B lymphocyte
C; Keywords: immunoglobulin
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.6e+04;
                                                    0; Indels
                                                                      Gaps
  Matches
             2; Conservative
                                0; Mismatches
            1 AR 2
Qу
              Db
            2 AR 3
RESULT 31
PH1584
Ig H chain V-D-J region (wild-type clone 8) - mouse (fragment)
C; Species: Mus musculus (house mouse)
C;Date: 02-Jun-1994 #sequence_revision 02-Jun-1994 #text change 17-Mar-1999
C; Accession: PH1584
R; Levinson, D.A.; Campos-Torres, J.; Leder, P.
J. Exp. Med. 178, 317-329, 1993
```

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A; Title: Molecular characterization of transgene-induced immunodeficiency in B-
less mice using a novel quantitative limiting dilution polymerase chain reaction
method.
A; Reference number: PH1580; MUID: 93301609; PMID: 8315387
A; Accession: PH1584
A; Molecule type: DNA
A; Residues: 1-11 <LEV>
A; Experimental source: bone marrow pre-B lymphocyte
C: Keywords: immunoglobulin
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 2.6e+04;
                                 0; Mismatches
                                                                  0;
                                                                      Gaps
                                                                               0;
            2; Conservative
                                                    0; Indels
            1 AR 2
Qу
              11
            2 AR 3
Db
RESULT 32
PT0217
T-cell receptor beta chain V-J region (4-1-E.2) - mouse (fragment)
C; Species: Mus musculus (house mouse)
C;Date: 31-Dec-1991 #sequence_revision 31-Dec-1991 #text_change 30-May-1997
C; Accession: PT0217
R; Nakano, N.; Kikutani, H.; Nishimoto, H.; Kishimoto, T.
J. Exp. Med. 173, 1091-1097, 1991
A; Title: T cell receptor V gene usage of islet beta cell-reactive T cells is not
restricted in non-obese diabetic mice.
A; Reference number: PT0209; MUID: 91217621; PMID: 1902501
A; Accession: PT0217
A; Molecule type: mRNA
A; Residues: 1-11 <NAK>
C; Keywords: T-cell receptor
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 2.6e+04;
  Best Local Similarity
                                 0; Mismatches
                                                                               0;
                                                    0;
                                                       Indels
                                                                  0;
  Matches
            2; Conservative
            4 SR 5
Qу
              · 3 SR 4
Db
RESULT 33
PT0214
T-cell receptor beta chain V-J region (4-1-L.6) - mouse (fragment)
C; Species: Mus musculus (house mouse)
C;Date: 31-Dec-1991 #sequence revision 31-Dec-1991 #text change 30-May-1997
C; Accession: PT0214
R; Nakano, N.; Kikutani, H.; Nishimoto, H.; Kishimoto, T.
J. Exp. Med. 173, 1091-1097, 1991
A; Title: T cell receptor V gene usage of islet beta cell-reactive T cells is not
restricted in non-obese diabetic mice.
A; Reference number: PT0209; MUID: 91217621; PMID: 1902501
A; Accession: PT0214
A; Molecule type: mRNA
```

```
C: Keywords: T-cell receptor
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 2.6e+04;
  Best Local Similarity
                                                                              0;
                              0; Mismatches
                                                       Indels
                                                                  0; Gaps
                                                   0;
            2; Conservative
            1 AR 2
Qy
Db
            3 AR 4
RESULT 34
C38887
T-cell receptor gamma chain (5a.3) - mouse (fragment)
C; Species: Mus musculus (house mouse)
C;Date: 03-Feb-1994 #sequence revision 03-Feb-1994 #text change 07-May-1999
C; Accession: C38887
R; Whetsell, M.; Mosley, R.L.; Whetsell, L.; Schaefer, F.V.; Miller, K.S.; Klein,
Mol. Cell. Biol. 11, 5902-5909, 1991
A; Title: Rearrangement and junctional-site sequence analyses of T-cell receptor
gamma genes in intestinal intraepithelial lymphocytes from murine athymic
chimeras.
A; Reference number: A41946; MUID: 92049316; PMID: 1658619
A:Accession: C38887
A; Status: preliminary; not compared with conceptual translation
A; Molecule type: DNA
A; Residues: 1-11 <WHE>
C; Keywords: T-cell receptor
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 2.6e+04;
  Best Local Similarity
             2; Conservative 0; Mismatches
                                                  0; Indels
                                                                      Gaps
                                                                              0;
  Matches
            5 RD 6
Qу
              6 RD 7
Ďb
RESULT 35
PD0441
translation elongation factor TU-like protein P43, mitochondrial - mouse
(fragment)
C; Species: Mus musculus (house mouse)
C;Date: 21-Aug-1998 #sequence revision 21-Aug-1998 #text_change 21-Aug-1998
C; Accession: PD0441
R; Kawakami, T.; Uchida, T.; Sakai, T.; Kamo, M.; Morimasa, T.; Tsugita, A.
submitted to JIPID, August 1998
A; Description: Proteome analysis of mouse brain.
A; Reference number: PD0441
A; Accession: PD0441
A; Molecule type: protein
A; Residues: 1-11 <KAW>
A; Experimental source: striatum
C; Keywords: mitochondrion
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A: Residues: 1-11 < NAK>

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18.2%; Score 2; DB 2; Length 11;
 Query Match
                          100.0%; Pred. No. 2.6e+04;
  Best Local Similarity
                                                                              0;
                                                   0; Indels
                                                                 0; Gaps
                              0; Mismatches
             2; Conservative
            5 RD 6
Qу
              11
           10 RD 11
Db
RESULT 36
PH0929
T-cell receptor beta chain V-D-J region (clone 15) - rat (fragment)
C; Species: Rattus norvegicus (Norway rat)
C;Date: 09-Oct-1992 #sequence_revision 09-Oct-1992 #text_change 30-May-1997
C; Accession: PH0929
R;Gold, D.P.; Offner, H.; Sun, D.; Wiley, S.; Vandenbark, A.A.; Wilson, D.B.
J. Exp. Med. 174, 1467-1476, 1991
A; Title: Analysis of T cell receptor beta chains in Lewis rats with experimental
allergic encephalomyelitis: conserved complementarity determining region 3.
A; Reference number: PH0891; MUID: 92078857; PMID: 1836012
A; Accession: PH0929
A; Molecule type: mRNA
A; Residues: 1-11 <GOL>
A; Experimental source: concanavalin A-activated lymphoblast
C: Keywords: T-cell receptor
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 2.6e+04;
  Best Local Similarity
                                 0; Mismatches
                                                                              0;
                                                   0;
                                                       Indels
                                                                  0; Gaps
            2; Conservative
            4 SR 5
Qу
              11
            3 SR 4
Db
RESULT 37
PH0947
T-cell receptor beta chain V-D-J region (clone A2) - rat (fragment)
C; Species: Rattus norvegicus (Norway rat)
C;Date: 09-Oct-1992 #sequence_revision 09-Oct-1992 #text_change 30-May-1997
C; Accession: PH0947
R; Gold, D.P.; Offner, H.; Sun, D.; Wiley, S.; Vandenbark, A.A.; Wilson, D.B.
J. Exp. Med. 174, 1467-1476, 1991
A; Title: Analysis of T cell receptor beta chains in Lewis rats with experimental
allergic encephalomyelitis: conserved complementarity determining region 3.
A; Reference number: PH0891; MUID: 92078857; PMID: 1836012
A; Accession: PH0947
A; Molecule type: mRNA
A; Residues: 1-11 <GOL>
A; Experimental source: myelin basic protein fragment-reactive T-cell, recovered
from experimentally induced allergic encephalomyelitis
C; Keywords: T-cell receptor
                           18.2%; Score 2; DB 2; Length 11;
  Ouerv Match
                          100.0%; Pred. No. 2.6e+04;
  Best Local Similarity
                                                                              0;
                               0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
             2; Conservative
  Matches
```

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4 SR 5
Qy
            3 SR 4
Db
RESULT 38
T12264
cytochrome-c oxidase (EC 1.9.3.1) chain I - Laudakia caucasia mitochondrion
C; Species: mitochondrion Laudakia caucasia
C;Date: 23-Jul-1999 #sequence revision 23-Jul-1999 #text change 03-Aug-2001
C; Accession: T12264; T12267; \overline{\text{T}}12270; T12273; T12276; T12\overline{\text{T}}79
R; Macey, J.R.; Schulte II, J.A.; Ananjeva, N.B.; Larson, A.; Rastegar-Pouyani,
N.; Shammakov, S.M.; Papenfuss, T.J.
Mol. Phylogenet. Evol. 10, 118-131, 1998
A; Title: Phylogenetic relationships among agamid lizards of the Laudakia
caucasia species group: Testing hypotheses of biogeographic fragmentation and an
area cladogram for the Iranian Plateau.
A; Reference number: Z17470; MUID: 98424476; PMID: 9751922
A; Accession: T12264
A; Status: preliminary; translated from GB/EMBL/DDBJ
A; Molecule type: DNA
A; Residues: 1-11 <MAC1>
A; Cross-references: EMBL: AF028681; NID: g3641460; PIDN: AAC99596.1; PID: g3641463
A; Experimental source: specimen voucher CAS185010; California Academy of
Sciences, San Francisco
A; Accession: T12267
A; Status: preliminary; translated from GB/EMBL/DDBJ
A; Molecule type: DNA
A; Residues: 1-11 <MAC2>
A; Cross-references: EMBL: AF028682; NID: g3641464; PIDN: AAC99599.1; PID: g3641467
A; Accession: T12270
A; Status: preliminary; translated from GB/EMBL/DDBJ
A; Molecule type: DNA
A; Residues: 1-11 <MAC3>
A;Cross-references: EMBL:AF028683; NID:g3641468; PIDN:AAC99602.1; PID:g3641471
A; Accession: T12273
A; Status: preliminary; translated from GB/EMBL/DDBJ
A; Molecule type: DNA
A; Residues: 1-11 <MAC4>
A; Cross-references: EMBL: AF028684; NID: g3641472; PIDN: AAC99605.1; PID: g3641475
A; Accession: T12276
A; Status: preliminary; translated from GB/EMBL/DDBJ
A; Molecule type: DNA
A; Residues: 1-11 <MAC5>
A; Cross-references: EMBL: AF028686; NID: g3641480; PIDN: AAC99611.1; PID: g3641483
A; Accession: T12279
A; Status: preliminary; translated from GB/EMBL/DDBJ
A; Molecule type: DNA
A; Residues: 1-11 <MAC6>
A;Cross-references: EMBL:AF028687; NID:g3641484; PIDN:AAC99614.1; PID:g3641487
C; Genetics:
A; Gene: COI
A; Genome: mitochondrion
C; Keywords: mitochondrion; oxidoreductase
```

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Best Local Similarity 100.0%; Pred. No. 2.6e+04;
            2; Conservative 0; Mismatches
                                                   0;
                                                        Indels
                                                                      Gaps
                                                                               0;
 Matches
            7 MT 8
Qу
              -1-1
            4 MT 5
RESULT 39
T12253
cytochrome-c oxidase (EC 1.9.3.1) chain I - Laudakia erythrogastra mitochondrion
(fragment)
C; Species: mitochondrion Laudakia erythrogastra
C;Date: 23-Jul-1999 #sequence revision 23-Jul-1999 #text change 03-Aug-2001
C; Accession: T12253; T12257
R; Macey, J.R.; Schulte II, J.A.; Ananjeva, N.B.; Larson, A.; Rastegar-Pouyani,
N.; Shammakov, S.M.; Papenfuss, T.J.
Mol. Phylogenet. Evol. 10, 118-131, 1998
A; Title: Phylogenetic relationships among agamid lizards of the Laudakia
caucasia species group: Testing hypotheses of biogeographic fragmentation and an
area cladogram for the Iranian Plateau.
A; Reference number: Z17470; MUID: 98424476; PMID: 9751922
A; Accession: T12253
A; Status: preliminary; translated from GB/EMBL/DDBJ
A; Molecule type: DNA
A; Residues: 1-11 <MAC1>
A; Cross-references: EMBL: AF028679; NID: g3641452; PIDN: AAC99590.1; PID: g3641455
A; Experimental source: specimen voucher CAS182954; California Academy of
Sciences, San Francisco
A:Accession: T12257
A; Status: preliminary; translated from GB/EMBL/DDBJ
A; Molecule type: DNA
A; Residues: 1-11 <MAC2>
A; Cross-references: EMBL: AF028680; NID: g3641456; PIDN: AAC99593.1; PID: g3641459
A; Experimental source: specimen voucher CAS184400; California Academy of
Sciences, San Francisco
C: Genetics:
A; Gene: COI
A; Genome: mitochondrion
C; Keywords: mitochondrion; oxidoreductase
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 2.6e+04;
  Best Local Similarity
                                                                               0;
                                                    0; Indels
                                                                  0;
                                                                       Gaps
             2; Conservative
                                 0; Mismatches
            7 MT 8
Qу
              11
Db
            4 MT 5
RESULT 40
T12244
cytochrome-c oxidase (EC 1.9.3.1) chain I - Laudakia lehmanni mitochondrion
C; Species: mitochondrion Laudakia lehmanni
C;Date: 23-Jul-1999 #sequence revision 23-Jul-1999 #text change 03-Aug-2001
C; Accession: T12244
```

```
R; Macey, J.R.; Schulte II, J.A.; Ananjeva, N.B.; Larson, A.; Rastegar-Pouyani,
N.; Shammakov, S.M.; Papenfuss, T.J.
Mol. Phylogenet. Evol. 10, 118-131, 1998
A:Title: Phylogenetic relationships among agamid lizards of the Laudakia
caucasia species group: Testing hypotheses of biogeographic fragmentation and an
area cladogram for the Iranian Plateau.
A; Reference number: Z17470; MUID: 98424476; PMID: 9751922
A; Accession: T12244
A; Status: preliminary; translated from GB/EMBL/DDBJ
A; Molecule type: DNA
A; Residues: 1-11 <MAC>
A; Cross-references: EMBL: AF028677; NID: g3641444; PID: g3641447; PIDN: AAC99584.1
A; Experimental source: specimen voucher CAS183009; California Academy of
Sciences, San Francisco
C; Genetics:
A; Gene: COI
A; Genome: mitochondrion
C; Keywords: mitochondrion; oxidoreductase
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                                   Pred. No. 2.6e+04;
                          100.0%;
  Best Local Similarity
                               0; Mismatches
                                                    0; Indels
                                                                  0;
                                                                      Gaps
                                                                               0;
             2;
                Conservative
            7 MT 8
Qy
              | | |
            4 MT 5
Db
RESULT 41
T12248
cytochrome-c oxidase (EC 1.9.3.1) chain I - Laudakia microlepis mitochondrion
(fragment)
C; Species: mitochondrion Laudakia microlepis
C;Date: 23-Jul-1999 #sequence revision 23-Jul-1999 #text change 03-Aug-2001
C; Accession: T12248
R; Macey, J.R.; Schulte II, J.A.; Ananjeva, N.B.; Larson, A.; Rastegar-Pouyani,
N.; Shammakov, S.M.; Papenfuss, T.J.
Mol. Phylogenet. Evol. 10, 118-131, 1998
A; Title: Phylogenetic relationships among agamid lizards of the Laudakia
caucasia species group: Testing hypotheses of biogeographic fragmentation and an
area cladogram for the Iranian Plateau.
A; Reference number: Z17470; MUID: 98424476; PMID: 9751922
A; Accession: T12248
A; Status: preliminary; translated from GB/EMBL/DDBJ
A; Molecule type: DNA
A; Residues: 1-11 <MAC>
A; Cross-references: EMBL: AF028678; NID: g3641448; PID: g3641451; PIDN: AAC99587.1
A; Experimental source: specimen voucher GNM. RE. ex.-P120; Goteborg Natural
History Museum Reptilia Exotica, Goteborg, Sweden
C; Genetics:
A; Gene: COI
A; Genome: mitochondrion
C; Keywords: mitochondrion; oxidoreductase
  Query Match
                           18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity
                           100.0%; Pred. No. 2.6e+04;
                                                                       Gaps
                                                                               0;
  Matches
             2; Conservative
                                  0; Mismatches
                                                    0; Indels
```

```
7 MT 8
Qу
              | \cdot |
            4 MT 5
Db
RESULT 42
152708
ELAV-like neuronal protein 1, truncated splice form - human
N; Alternate names: Drosophila ELAV (embryonic lethal, abnormal vision) - like 4; Hu
antigen D; paraneoplastic encephalomyelitis antigen
C; Species: Homo sapiens (man)
C; Date: 18-Aug-2000 #sequence revision 18-Aug-2000 #text change 18-Aug-2000
C; Accession: I52708
R; Sekido, Y.; Bader, S.A.; Carbone, D.P.; Johnson, B.E.; Minna, J.D.
Cancer Res. 54, 4988-4992, 1994
A; Title: Molecular analysis of the HuD gene encoding a paraneoplastic
encephalomyelitis antigen in human lung cancer cell lines.
A; Reference number: I52708; MUID: 94349312; PMID: 8069866
A; Accession: I52708
A; Status: translated from GB/EMBL/DDBJ
A; Molecule type: mRNA
A; Residues: 1-11 <SEK>
A; Cross-references: GB: S73887; NID: g688242; PIDN: AAD14142.1; PID: g4261842
C; Comment: This abnormal peptide is expressed. For the long splice form, see
PIR: 138726.
C; Genetics:
A; Gene: GDB: ELAVL4; HUD; PNEM
A; Cross-references: GDB:141875; OMIM:168360
A; Map position: 1p36-1p36
C; Keywords: alternative splicing
                           18.2%; Score 2; DB 4; Length 11;
  Query Match
                          100.0%; Pred. No. 2.6e+04;
  Best Local Similarity
             2; Conservative 0; Mismatches 0; Indels
                                                                   0; Gaps
                                                                               0;
            4 SR 5
Qy
              11
            5 SR 6
RESULT 43
S52252
hypothetical protein pco 5'-region - Escherichia coli plasmid pRJ1004 (fragment)
C; Species: Escherichia coli
C; Date: 22-Oct-1999 #sequence_revision 22-Oct-1999 #text_change 22-Oct-1999
C; Accession: S70166; S52252
R; Brown, N.L.; Barrett, S.R.; Camakaris, J.; Lee, B.T.O.; Rouch, D.A.
Mol. Microbiol. 17, 1153-1166, 1995
A; Title: Molecular genetics and transport analysis of the copper-resistance
determinant (pco) from Escherichia coli plasmid pRJ1004.
A; Reference number: S70159; MUID: 96130847; PMID: 8594334
A; Accession: S70166
A; Status: nucleic acid sequence not shown; translation not shown
A; Molecule type: DNA
A; Residues: 1-11 <BRO>
A; Cross-references: EMBL: X83541; NID: g619126; PIDN: CAA58524.1; PID: g619127
```

```
A; Note: the nucleotide sequence was submitted to the EMBL Data Library, January
C; Comment: This is the hypothetical translation of a sequence that was not
reported as a coding sequence in the complete genome.
C:Genetics:
A; Genome: plasmid pRJ1004
                          18.2%; Score 2; DB 4; Length 11;
  Query Match
                          100.0%; Pred. No. 2.6e+04;
  Best Local Similarity
                                                                              0;
                                                    0; Indels
                                                                  0; Gaps
                                0; Mismatches
             2; Conservative
            8 TA 9
Qу
              11
            6 TA 7
Db
RESULT 44
XAVIBH
bradykinin-potentiating peptide - halys viper
N; Alternate names: BPP
C; Species: Agkistrodon halys (halys viper)
C;Date: 30-Sep-1988 #sequence revision 30-Sep-1988 #text change 05-Aug-1994
C; Accession: JC0002
R; Chi, C.W.; Wang, S.Z.; Xu, L.G.; Wang, M.Y.; Lo, S.S.; Huang, W.D.
Peptides 6, 339-342, 1985
A; Title: Structure-function studies on the bradykinin potentiating peptide from
Chinese snake venom (Agkistrodon halys Pallas).
A; Reference number: JC0002; MUID: 86177022; PMID: 3008123
A; Accession: JC0002
A; Molecule type: protein
A: Residues: 1-11 <CHI>
C; Comment: Because this peptide both inhibits the activity of the angiotensin-
converting enzyme and enhances the action of bradykinin, it is an
antihypertensive agent.
C; Superfamily: bradykinin-potentiating peptide
C; Keywords: angiotensin-converting enzyme inhibitor; antihypertensive;
bradykinin; pyroglutamic acid; venom
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2e+05;
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
  Matches
             1; Conservative
                                 0; Mismatches
            2 R 2
Qу
            3 R 3
Db
RESULT 45
XASNBA
bradykinin-potentiating peptide B - mamushi
C; Species: Agkistrodon blomhoffi (mamushi)
C;Date: 13-Jul-1981 #sequence revision 13-Jul-1981 #text change 08-Dec-1995
C; Accession: A01254
R; Kato, H.; Suzuki, T.
Proc. Jpn. Acad. 46, 176-181, 1970
```

A; Reference number: A01254

```
A: Molecule type: protein
A; Residues: 1-11 <KAT>
A; Note: the sequence of the natural peptide was confirmed by the synthesis and
analysis of a peptide having the identical structure and biological properties
C; Superfamily: bradykinin-potentiating peptide
C; Keywords: angiotensin-converting enzyme inhibitor; bradykinin; pyroglutamic
acid; venom
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
                           9.1%; Score 1; DB 1; Length 11;
                          100.0%; Pred. No. 2e+05;
  Best Local Similarity
                                                   0; Indels
                                                                              0;
                              0; Mismatches
                                                                  0; Gaps
            1; Conservative
  Matches
            2 R 2
Qy
            6 R 6
Db
RESULT 46
ECLO2M
tachykinin II - migratory locust
C; Species: Locusta migratoria (migratory locust)
C;Date: 31-Dec-1991 #sequence revision 31-Dec-1991 #text change 08-Dec-1995
C: Accession: S08266
R; Schoofs, L.; Holman, G.M.; Hayes, T.K.; Nachman, R.J.; de Loof, A.
FEBS Lett. 261, 397-401, 1990
A; Title: Locustatachykinin I and II, two novel insect neuropeptides with
homology to peptides of the vertebrate tachykinin family.
A; Reference number: S08265; MUID: 90184489; PMID: 2311766
A; Accession: S08266
A; Molecule type: protein
A; Residues: 1-11 <SCH>
C; Superfamily: tachykinin
C; Keywords: amidated carboxyl end; neuropeptide; tachykinin
F;11/Modified site: amidated carboxyl end (Arg) #status experimental
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 2e+05;
  Best Local Similarity
                                                                              0;
             1; Conservative
                                0; Mismatches 0; Indels
                                                                  0; Gaps
  Matches
            1 A 1
Qу
            1 A 1
Db
RESULT 47
SPHO
substance P - horse
C; Species: Equus caballus (domestic horse)
C;Date: 23-Oct-1981 #sequence_revision 23-Oct-1981 #text_change 23-Aug-1996
C; Accession: A01558
R; Studer, R.O.; Trzeciak, A.; Lergier, W.
Helv. Chim. Acta 56, 860-866, 1973
A; Title: Isolierung und Aminosaeuresequenz von Substanz P aus Pferdedarm.
A; Reference number: A01558
A; Accession: A01558
```

A; Accession: A01254

```
A; Residues: 1-11 <STU>
C; Superfamily: substance P precursor
C; Keywords: amidated carboxyl end; hormone
F;11/Modified site: amidated carboxyl end (Met) #status experimental
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2e+05;
                                                                              0;
                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
             1; Conservative
            2 R 2
Qy
              -
            1 R 1
Db
RESULT 48
EOOCC
eledoisin - curled octopus
C; Species: Eledone cirrosa, Ozaena cirrosa (curled octopus)
C;Date: 31-Dec-1991 #sequence revision 31-Dec-1991 #text change 20-Mar-1998
C; Accession: B01561; A01561
R; Anastasi, A.; Erspamer, V.
Arch. Biochem. Biophys. 101, 56-65, 1963
A; Title: The isolation and amino acid sequence of eledoisin, the active
endecapeptide of the posterior salivary glands of Eledone.
A:Reference number: A01561
A; Accession: B01561
A; Molecule type: protein
A; Residues: 1-11 <ANA>
C; Superfamily: substance P precursor
C; Keywords: amidated carboxyl end; hormone; pyroglutamic acid; salivary gland;
secretagogue; vasodilator; venom
F; 1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
F;11/Modified site: amidated carboxyl end (Met) #status experimental
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 2e+05;
  Best Local Similarity
                                                                               0;
                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                Conservative
             1;
            4 S 4
Qу
            3 S 3
Db
RESULT 49
A60654
substance P - guinea pig
C; Species: Cavia porcellus (guinea pig)
C;Date: 14-May-1993 #sequence_revision 27-Jun-1994 #text_change 08-Dec-1995
C; Accession: A60654
R; Murphy, R.
Neuropeptides 14, 105-110, 1989
A; Title: Primary amino acid sequence of guinea-pig substance P.
A; Reference number: A60654; MUID: 90044685; PMID: 2478925
A; Accession: A60654
A; Molecule type: protein
A; Residues: 1-11 <MUR>
```

A; Molecule type: protein

```
C; Superfamily: substance P precursor
C; Keywords: amidated carboxyl end; neuropeptide; tachykinin
F;11/Modified site: amidated carboxyl end (Met) #status experimental
                           9.1%; Score 1; DB 1; Length 11;
 Ouery Match
                          100.0%; Pred. No. 2e+05;
 Best Local Similarity
                                                                  0; Gaps
                                                                              0;
                                                   0; Indels
            1; Conservative
                               0; Mismatches
 Matches
            2 R 2
Qу
            1 R 1
Db
RESULT 50
FOOC
eledoisin - musky octopus
C; Species: Eledone moschata, Ozaena moschata (musky octopus)
C;Date: 13-Jul-1981 #sequence revision 13-Jul-1981 #text change 20-Mar-1998
C; Accession: A01561
R; Anastasi, A.; Erspamer, V.
Arch. Biochem. Biophys. 101, 56-65, 1963
A; Title: The isolation and amino acid sequence of eledoisin, the active
endecapeptide of the posterior salivary glands of Eledone.
A; Reference number: A01561
A:Accession: A01561
A; Molecule type: protein
A; Residues: 1-11 <ANA>
C; Superfamily: substance P precursor
C; Keywords: amidated carboxyl end; hormone; pyroglutamic acid; salivary gland;
secretagogue; vasodilator; venom
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
F;11/Modified site: amidated carboxyl end (Met) #status experimental
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 2e+05;
  Best Local Similarity
                                                                              0;
                                                                  0; Gaps
             1; Conservative
                                0; Mismatches
                                                   0; Indels
  Matches
            4 S 4
Qу
            3 S 3
Db
RESULT 51
GMROL
leucosulfakinin - Madeira cockroach
N; Alternate names: LSK
C; Species: Leucophaea maderae (Madeira cockroach)
C;Date: 17-Mar-1987 #sequence_revision 17-Mar-1987 #text_change 13-Sep-1996
C; Accession: A01622
R; Nachman, R.J.; Holman, G.M.; Haddon, W.F.; Ling, N.
Science 234, 71-73, 1986
A; Title: Leucosulfakinin, a sulfated insect neuropeptide with homology to
gastrin and cholecystokinin.
A; Reference number: A01622; MUID: 86315858; PMID: 3749893
A; Accession: A01622
A; Molecule type: protein
A; Residues: 1-11 <NAC>
```

```
C; Superfamily: gastrin
C; Keywords: amidated carboxyl end; hormone; sulfoprotein
F;6/Binding site: sulfate (Tyr) (covalent) #status experimental
F;11/Modified site: amidated carboxyl end (Phe) #status experimental
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2e+05;
                               0; Mismatches
                                                                 0; Gaps
                                                                              0;
                                                  0; Indels
          1; Conservative
 Matches
            6 D 6
QУ
            5 D 5
Db
RESULT 52
LFTWWE
probable trpEG leader peptide - Thermus aquaticus
C; Species: Thermus aquaticus
C;Date: 30-Jun-1991 #sequence_revision 30-Jun-1991 #text_change 16-Jul-1999
C; Accession: 503315
R; Sato, S.; Nakada, Y.; Kanaya, S.; Tanaka, T.
Biochim. Biophys. Acta 950, 303-312, 1988
A; Title: Molecular cloning and nucleotide sequence of Thermus thermophilus HB8
trpE and trpG.
A; Reference number: S03315; MUID: 89000781; PMID: 2844259
A; Accession: S03315
A; Molecule type: DNA
A; Residues: 1-11 <SAT>
A; Cross-references: EMBL: X07744; NID: g48261; PIDN: CAA30565.1; PID: g48262
A; Note: the source is designated as Thermus thermophilus HB8
C; Genetics:
A; Gene: trpL
C; Superfamily: probable trpEG leader peptide
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2e+05;
                                                                              0;
            1; Conservative 0; Mismatches 0; Indels
                                                                  0; Gaps
  Matches
            7 M 7
Qу
              -
            1 M 1
Db
RESULT 53
S66196
alcohol dehydrogenase (EC 1.1.1.1) class III high affinity form - cod (Gadus
sp.) (fragment)
C; Species: Gadus sp. (cod)
C; Date: 14-Feb-1997 #sequence revision 13-Mar-1997 #text_change 12-Jun-1998
C; Accession: S66196
R; Hjelmqvist, L.; Hackett, M.; Shafqat, J.; Danielsson, O.; Iida, J.;
Hendrickson, R.C.; Michel, H.; Shabanowitz, J.; Hunt, D.F.; Joernvall, H.
FEBS Lett. 367, 237-240, 1995
A; Title: Multiplicity of N-terminal structures of medium-chain alcohol
dehydrogenases. Mass-spectrometric analysis of plant, lower vertebrate and
higher vertebrate class I, II, and III forms of the enzyme.
A; Reference number: S66191; MUID: 95331382; PMID: 7607314
```

```
A; Accession: S66196
A; Molecule type: protein
A: Residues: 1-11 <HJE>
C; Superfamily: alcohol dehydrogenase; long-chain alcohol dehydrogenase homology
C; Keywords: alcohol metabolism; NAD; oxidoreductase
                           9.1%; Score 1; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 2e+05;
  Best Local Similarity
                                0; Mismatches
                                                  0; Indels
                                                                      Gaps
                                                                              0;
             1; Conservative
  Matches
            8 T 8
Qy
            1 T 1
Db
RESULT 54
G42762
proteasome endopeptidase complex (EC 3.4.25.1) subunit 13 - bovine (fragment)
C; Species: Bos primigenius taurus (cattle)
C;Date: 04-Mar-1993 #sequence revision 18-Nov-1994 #text change 17-Feb-2003
C; Accession: G42762
R; Dick, L.R.; Moomaw, C.R.; Pramanik, B.C.; DeMartino, G.N.; Slaughter, C.A.
Biochemistry 31, 7347-7355, 1992
A; Title: Identification and localization of a cysteinyl residue critical for the
trypsin-like catalytic activity of the proteasome.
A; Reference number: A42762; MUID: 92378961; PMID: 1510924
A: Accession: G42762
A; Status: preliminary
A; Molecule type: protein
A; Residues: 1-11 <DIC>
A; Note: sequence extracted from NCBI backbone (NCBIP:112176)
C; Superfamily: multicatalytic endopeptidase complex chain C9
C; Keywords: hydrolase
                           9.1%; Score 1; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 2e+05;
  Best Local Similarity
                                                                               0;
                                                                  0; Gaps
             1; Conservative
                               0; Mismatches
                                                   0; Indels
  Matches
            7 M 7
Qу
              1
            1 M 1
Db
RESULT 55
A33917
dihydroorotase (EC 3.5.2.3) - Chinese hamster (fragment)
C; Species: Cricetulus griseus (Chinese hamster)
C;Date: 09-Mar-1990 #sequence revision 09-Mar-1990 #text change 07-Nov-1997
C; Accession: A33917
R; Simmer, J.P.; Kelly, R.E.; Scully, J.L.; Grayson, D.R.; Rinker Jr., A.G.;
Bergh, S.T.; Evans, D.R.
Proc. Natl. Acad. Sci. U.S.A. 86, 4382-4386, 1989
A; Title: Mammalian aspartate transcarbamylase (ATCase): sequence of the ATCase
domain and interdomain linker in the CAD multifunctional polypeptide and
properties of the isolated domain.
A; Reference number: A33917; MUID: 89282776; PMID: 2543974
A; Accession: A33917
```

```
A: Molecule type: mRNA
A; Residues: 1-11 <SIM>
A; Cross-references: GB:M23652
C; Superfamily: rudimentary enzyme; aspartate/ornithine carbamoyltransferase
homology; Bacillus dihydroorotase homology; biotin carboxylase homology;
carbamoyl-phosphate synthase (ammonia) homology; carbamoyl-phosphate synthase
(glutamine-hydrolyzing) large chain homology; carbamoyl-phosphate synthase
(glutamine-hydrolyzing) small chain homology; trpG homology
C; Keywords: hydrolase
                           9.1%; Score 1; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 2e+05;
  Best Local Similarity
                                 0; Mismatches
                                                  0; Indels
                                                                  0; Gaps
                                                                              0;
            1; Conservative
            2 R 2
Qy
           11 R 11
Db
RESULT 56
B49164
chromogranin-B - rat (fragment)
C; Species: Rattus norvegicus (Norway rat)
C;Date: 19-Dec-1993 #sequence revision 18-Nov-1994 #text_change 31-Oct-1997
C:Accession: B49164
R; Nielsen, E.; Welinder, B.S.; Madsen, O.D.
Endocrinology 129, 3147-3156, 1991
A; Title: Chromogranin-B, a putative precursor of eight novel rat glucagonoma
peptides through processing at mono-, di-, or tribasic residues.
A; Reference number: A49164; MUID: 92063871; PMID: 1954895
A; Accession: B49164
A; Status: preliminary
A; Molecule type: protein
A; Residues: 1-11 <NIE>
A; Note: sequence extracted from NCBI backbone (NCBIP:66370)
C; Superfamily: chromogranin B precursor
                           9.1%; Score 1; DB 2; Length 11;
  Ouerv Match
                          100.0%; Pred. No. 2e+05;
  Best Local Similarity
                                                                              0;
                                0; Mismatches 0; Indels
                                                                  0;
                                                                      Gaps
  Matches
             1; Conservative
            4 S 4
Qу
Dh
            3 S 3
RESULT 57
JN0023
substance P - chicken
C; Species: Gallus gallus (chicken)
C;Date: 07-Sep-1990 #sequence_revision 07-Sep-1990 #text_change 11-Jul-1997
C; Accession: JN0023
R; Conlon, J.M.; Katsoulis, S.; Schmidt, W.E.; Thim, L.
Regul. Pept. 20, 171-180, 1988
A; Title: [Arg3] substance P and neurokinin A from chicken small intestine.
A; Reference number: JN0023; MUID: 88204263; PMID: 2452461
```

A; Status: preliminary

```
A; Accession: JN0023
A: Molecule type: protein
A; Residues: 1-11 <CON>
C: Superfamily: substance P precursor
C; Keywords: amidated carboxyl end; tachykinin
F;11/Modified site: amidated carboxyl end (Met) #status predicted
                           9.1%; Score 1; DB 2; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2e+05;
                                                                              0;
                                0; Mismatches
                                                  0; Indels
             1; Conservative
            2 R 2
Qу
            1 R 1
Db
RESULT 58
PQ0682
photosystem I 17.5K'D2 chain - common tobacco (fragment)
C; Species: Nicotiana tabacum (common tobacco)
C;Date: 19-May-1994 #sequence revision 19-May-1994 #text_change 17-Mar-1999
C; Accession: PQ0682
R; Obokata, J.; Mikami, K.; Hayashida, N.; Nakamura, M.; Sugiura, M.
Plant Physiol. 102, 1259-1267, 1993
A; Title: Molecular heterogeneity of photosystem I. psaD, psaE, psaF, psaH and
psaL are all present in isoforms in Nicotiana spp.
A; Reference number: PQ0667; MUID: 94105345; PMID: 8278548
A; Accession: PQ0682
A; Molecule type: protein
A; Residues: 1-11 <OBO>
C; Superfamily: photosystem I chain II
C; Keywords: chloroplast; photosynthesis; photosystem I; thylakoid
                           9.1%; Score 1; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 2e+05;
  Best Local Similarity
                                                                              0;
                                                   0; Indels
                                                                      Gaps
             1; Conservative 0; Mismatches
  Matches
            1 A 1
Qу
              1
            1 A 1
RESULT 59
S00616
parasporal crystal protein, wax moth-specific - Bacillus thuringiensis (strain
galleriae 11-67) (fragment)
N; Alternate names: delta-endotoxin; parasporal crystal protein positive chain
C; Species: Bacillus thuringiensis
C; Date: 31-Dec-1988 #sequence revision 31-Dec-1988 #text change 13-Sep-1996
C; Accession: S00616
R; Chestukhina, G.G.; Kostina, L.I.; Zalunin, I.A.; Khodova, O.M.; Stepanov, V.M.
FEBS Lett. 232, 249-251, 1988
A; Title: Bacillus thuringiensis ssp. galleriae simultaneously produces two
delta-endotoxins differing strongly in primary structure and entomocidal
activity.
A; Reference number: S00615
A; Accession: S00616
```

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A; Molecule type: protein
A; Residues: 1-11 < CHE>
C; Comment: This toxin is effective against the larvae of Galleria melonella
(greater wax moth) but not those of Lymantria dispar (gypsy moth).
C; Superfamily: parasporal crystal protein
C; Keywords: delta-endotoxin
                           9.1%; Score 1; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 2e+05;
  Best Local Similarity
                                                                  0: Gaps
                                 0; Mismatches
                                                   0; Indels
             1; Conservative
            1 A 1
Qу
            4 A 4
Db
RESULT 60
C53652
rhlR protein - Pseudomonas aeruginosa (fragment)
C; Species: Pseudomonas aeruginosa
C;Date: 21-Jul-1995 #sequence revision 28-Jul-1995 #text change 21-Aug-1998
C; Accession: C53652
R;Ochsner, U.A.; Fiechter, A.; Reiser, J.
J. Biol. Chem. 269, 19787-19795, 1994
A; Title: Isolation, characterization, and expression in Escherichia coli of the
Pseudomonas aeruginosa rhlAB genes encoding a rhamnosyltransferase involved in
rhamnolipid biosurfactant synthesis.
A; Reference number: A53652; MUID: 94327521; PMID: 8051059
A; Accession: C53652
A; Status: preliminary
A; Molecule type: DNA
A; Residues: 1-11 <OCH>
A; Cross-references: GB:L28170
C; Superfamily: sdiA regulatory protein
                            9.1%; Score 1; DB 2;
                                                    Length 11;
  Query Match
                          100.0%; Pred. No. 2e+05;
  Best Local Similarity
                                                                               0;
                                 0; Mismatches
                                                                       Gaps
                                                    0: Indels
             1;
                Conservative
            7 M 7
Qy
            1 M 1
Db
RESULT 61
S09074
cytochrome P450-4b - rat (fragment)
N; Alternate names: cytochrome P450K-5
N; Contains: oxidoreductase (EC 1.-.-.)
C; Species: Rattus norvegicus (Norway rat)
C;Date: 23-Apr-1993 #sequence_revision 23-Apr-1993 #text change 05-Mar-1999
C; Accession: S09074
R; Imaoka, S.; Terano, Y.; Funae, Y.
Arch. Biochem. Biophys. 278, 168-178, 1990
A; Title: Changes in the amount of cytochrome P450s in rat hepatic microsomes
with starvation.
A; Reference number: S09072; MUID: 90210577; PMID: 2321956
```

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A; Molecule type: protein
A; Residues: 1-11 < IMA>
C; Superfamily: unassigned cytochrome P450; cytochrome P450 homology
C; Keywords: heme; microsome; monooxygenase; oxidoreductase; transmembrane
protein
                          9.1%; Score 1;
                                           DB 2;
                                                 Length 11;
 Query Match
                         100.0%; Pred. No. 2e+05;
  Best Local Similarity
                                                               0; Gaps
                                                                           0;
                                0; Mismatches
                                                 0; Indels
            1; Conservative
 Matches
           8 T 8
Qy
           5 T 5
Db
RESULT 62
A57458
gene Gax protein - mouse (fragment)
C; Species: Mus sp. (mouse)
C; Accession: A57458
R; Andres, V.; Fisher, S.; Wearsch, P.; Walsh, K.
Mol. Cell. Biol. 15, 4272-4281, 1995
A; Title: Regulation of Gax homeobox gene transcription by a combination of
positive factors including myocyte-specific enhancer factor 2.
A; Reference number: A57458; MUID: 95349593; PMID: 7623821
A; Accession: A57458
A; Status: preliminary; translated from GB/EMBL/DDBJ
A; Molecule type: DNA
A; Residues: 1-11 < RES>
A;Cross-references: GB:S79168; NID:g1050991
C: Genetics:
A; Gene: Gax
C; Superfamily: unassigned homeobox proteins; homeobox homology
C; Keywords: DNA binding; homeobox; nucleus; transcription regulation
                          9.1%; Score 1; DB 2; Length 11;
  Query Match
                         100.0%; Pred. No. 2e+05;
  Best Local Similarity
                                                                           0;
                                                                0; Gaps
             1; Conservative
                                0; Mismatches
                                                 0; Indels
  Matches
            2 R 2
Qу
           10 R 10
Db
RESULT 63
D60409
kassinin-like peptide K-III - frog (Pseudophryne guentheri)
C; Species: Pseudophryne guentheri
C;Date: 30-Jan-1993 #sequence_revision 30-Jan-1993 #text_change 02-Sep-2000
C; Accession: D60409
R; Simmaco, M.; Severini, C.; De Biase, D.; Barra, D.; Bossa, F.; Roberts, J.D.;
Melchiorri, P.; Erspamer, V.
Peptides 11, 299-304, 1990
A; Title: Six novel tachykinin- and bombesin-related peptides from the skin of
the Australian frog Pseudophryne guentheri.
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A: Accession: S09074

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A; Reference number: A60409; MUID: 90287814; PMID: 2356157
A: Accession: D60409
A; Molecule type: protein
A: Residues: 1-11 <SIM>
C; Superfamily: unassigned animal peptides
C; Keywords: amidated carboxyl end; pyroglutamic acid
F; 1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
F;11/Modified site: amidated carboxyl end (Met) #status experimental
                            9.1%; Score 1; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 2e+05;
  Best Local Similarity
                                                                               0;
                                                 0; Indels
                                                                  0; Gaps
             1; Conservative
                                0; Mismatches
           · 7 M 7
Qу
           11 M 11
 Db
 RESULT 64
 F60409
 substance P-like peptide II - frog (Pseudophryne guentheri)
 C; Species: Pseudophryne guentheri
C; Date: 30-Jan-1993 #sequence revision 30-Jan-1993 #text_change 02-Sep-2000
 C:Accession: F60409
 R; Simmaco, M.; Severini, C.; De Biase, D.; Barra, D.; Bossa, F.; Roberts, J.D.;
 Melchiorri, P.; Erspamer, V.
 Peptides 11, 299-304, 1990
 A; Title: Six novel tachykinin- and bombesin-related peptides from the skin of
 the Australian frog Pseudophryne guentheri.
 A; Reference number: A60409; MUID:90287814; PMID:2356157
 A; Accession: F60409
 A; Molecule type: protein
 A; Residues: 1-11 <SIM>
 C; Superfamily: unassigned animal peptides
 C; Keywords: amidated carboxyl end; pyroglutamic acid
 F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
 F;11/Modified site: amidated carboxyl end (Met) #status experimental
                            9.1%; Score 1; DB 2; Length 11;
   Query Match
                           100.0%; Pred. No. 2e+05;
   Best Local Similarity
                                                  0; Indels
                                                                               0;
                                                                   0; Gaps
   Matches
              1; Conservative
                                  0; Mismatches
             7 M 7
 Qу
            11 M 11
 Db
 RESULT 65
 E60409
 substance P-like peptide I - frog (Pseudophryne guentheri)
 C; Species: Pseudophryne guentheri
 C;Date: 30-Jan-1993 #sequence_revision 30-Jan-1993 #text_change 02-Sep-2000
 C; Accession: E60409
 R; Simmaco, M.; Severini, C.; De Biase, D.; Barra, D.; Bossa, F.; Roberts, J.D.;
 Melchiorri, P.; Erspamer, V.
 Peptides 11, 299-304, 1990
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A; Title: Six novel tachykinin- and bombesin-related peptides from the skin of
the Australian frog Pseudophryne guentheri.
A; Reference number: A60409; MUID: 90287814; PMID: 2356157
A:Accession: E60409
A: Molecule type: protein
A; Residues: 1-11 <SIM>
C; Superfamily: unassigned animal peptides
C; Keywords: amidated carboxyl end; pyroglutamic acid
F; 1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
F;11/Modified site: amidated carboxyl end (Met) #status experimental
                           9.1%; Score 1; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 2e+05;
  Best Local Similarity
                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
             1; Conservative
            6 D 6
Qу
            5 D 5
Db
RESULT 66
YHRT
morphogenetic neuropeptide - rat
C:Species: Rattus norvegicus (Norway rat)
C; Date: 20-Jun-2000 #sequence revision 20-Jun-2000 #text change 20-Jun-2000
C; Accession: A01427
R; Bodenmuller, H.; Schaller, H.C.
Nature 293, 579-580, 1981
A; Title: Conserved amino acid sequence of a neuropeptide, the head activator,
from coelenterates to humans.
A; Reference number: A93266; MUID: 82035850; PMID: 7290191
A; Accession: A01427
A; Molecule type: protein
A; Residues: 1-11 <BOD>
R; Birr, C.; Zachmann, B.; Bodenmuller, H.; Schaller, H.C.
FEBS Lett. 131, 317-321, 1981
A; Title: Synthesis of a new neuropeptide, the head activator from hydra.
A; Reference number: A91296; MUID: 82050803; PMID: 7297679
A; Contents: annotation; synthesis
A; Note: the synthetic peptide was identical with the natural peptide in chemical
structure and biological activity
C; Comment: This peptide was first isolated from nerve cells of hydra and was
called head activator by the authors, because it induced head-specific growth
and differentiation in this animal. It has been found in mammalian intestine and
hypothalamus.
C; Superfamily: unassigned animal peptides
C; Keywords: growth factor; hormone; hypothalamus; intestine; neuropeptide;
pyroglutamic acid
 F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
                            9.1%; Score 1; DB 2; Length 11;
  Query Match
                           100.0%; Pred. No. 2e+05;
   Best Local Similarity
                                                    0; Indels
                                                                   0; Gaps
                                                                               0;
             1; Conservative 0; Mismatches
  Matches
             4 S 4
 Qу
```

6 S 6

Db

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RESULT 67
YHHU
morphogenetic neuropeptide - human
C; Species: Homo sapiens (man)
C; Date: 20-Jun-2000 #sequence_revision 20-Jun-2000 #text_change 20-Jun-2000
C; Accession: B01427; A01427
R; Bodenmuller, H.; Schaller, H.C.
Nature 293, 579-580, 1981
A; Title: Conserved amino acid sequence of a neuropeptide, the head activator,
from coelenterates to humans.
A; Reference number: A93266; MUID: 82035850; PMID: 7290191
A; Accession: B01427
A; Molecule type: protein
A; Residues: 1-11 <BOD>
R; Birr, C.; Zachmann, B.; Bodenmuller, H.; Schaller, H.C.
FEBS Lett. 131, 317-321, 1981
A; Title: Synthesis of a new neuropeptide, the head activator from hydra.
A; Reference number: A91296; MUID: 82050803; PMID: 7297679
A; Contents: annotation; synthesis
A; Note: the synthetic peptide was identical with the natural peptide in chemical
structure and biological activity
C; Comment: This peptide was first isolated from nerve cells of hydra and was
called head activator because it induced head-specific growth and
differentiation in this animal. It has been found in mammalian intestine and
hypothalamus.
C; Superfamily: unassigned animal peptides
C; Keywords: blocked amino end; growth factor; hormone; hypothalamus; intestine;
neuropeptide
F;1/Modified site: blocked amino end (Gln) (probably pyrrolidone carboxylic
acid) #status experimental
                            9.1%; Score 1; DB 2; Length 11;
  Query Match
                           100.0%; Pred. No. 2e+05;
  Best Local Similarity
                                                                               0;
                                                    0; Indels
                                                                       Gaps
            1; Conservative
                                 0; Mismatches
  Matches
             4 S 4
Qу
             6 S 6
Dh
RESULT 68
YHBO
morphogenetic neuropeptide - bovine
C; Species: Bos primigenius taurus (cattle)
C;Date: 20-Jun-2000 #sequence_revision 20-Jun-2000 #text_change 20-Jun-2000
C; Accession: C01427; A01427
R; Bodenmuller, H.; Schaller, H.C.
Nature 293, 579-580, 1981
A; Title: Conserved amino acid sequence of a neuropeptide, the head activator,
from coelenterates to humans.
A; Reference number: A93266; MUID: 82035850; PMID: 7290191
A; Accession: C01427
A; Molecule type: protein
A; Residues: 1-11 <BOD>
 R; Birr, C.; Zachmann, B.; Bodenmuller, H.; Schaller, H.C.
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A; Title: Synthesis of a new neuropeptide, the head activator from hydra.
A; Reference number: A91296; MUID: 82050803; PMID: 7297679
A; Contents: annotation; synthesis
A; Note: the synthetic peptide was identical with the natural peptide in chemical
structure and biological activity
C; Comment: This peptide was first isolated from nerve cells of hydra and was
called head activator because it induced head-specific growth and
differentiation in this animal. It has been found in mammalian intestine and
hypothalamus.
C; Superfamily: unassigned animal peptides
C; Keywords: blocked amino end; growth factor; hormone; hypothalamus; intestine;
F;1/Modified site: blocked amino end (Gln) (probably pyrrolidone carboxylic
acid) #status experimental
                           9.1%; Score 1; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 2e+05;
  Best Local Similarity
                                0; Mismatches
            1; Conservative
                                                   0; Indels
                                                                  0; Gaps
            4 S 4
Qу
            6 S 6
Db
RESULT 69
YHXAE
morphogenetic neuropeptide - sea anemone (Anthopleura elegantissima)
N; Alternate names: head activator
C; Species: Anthopleura elegantissima
C;Date: 20-Jun-2000 #sequence revision 20-Jun-2000 #text change 20-Jun-2000
C; Accession: A93900; A01427
R; Schaller, H.C.; Bodenmuller, H.
Proc. Natl. Acad. Sci. U.S.A. 78, 7000-7004, 1981
A; Title: Isolation and amino acid sequence of a morphogenetic peptide from
hydra.
A; Reference number: A93900
A; Accession: A93900
A; Molecule type: protein
A; Residues: 1-11 <SCH>
R; Birr, C.; Zachmann, B.; Bodenmuller, H.; Schaller, H.C.
FEBS Lett. 131, 317-321, 1981
A; Title: Synthesis of a new neuropeptide, the head activator from hydra.
A; Reference number: A91296; MUID: 82050803; PMID: 7297679
A; Contents: annotation; synthesis
A; Note: the synthetic peptide was identical with the natural peptide in chemical
structure and biological activity
C; Comment: This peptide was first isolated from nerve cells of hydra and was
called head activator because it induced head-specific growth and
differentiation in this animal. It has also been found in mammalian intestine
and hypothalamus.
C; Superfamily: unassigned animal peptides
C; Keywords: growth factor; hormone; neuropeptide; pyroglutamic acid
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
  Query Match
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Best Local Similarity 100.0%; Pred. No. 2e+05;

FEBS Lett. 131, 317-321, 1981

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            1; Conservative 0; Mismatches
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            4 S 4
Qу
Db
            6 S 6
RESULT 70
YHJFHY
morphogenetic neuropeptide - Hydra attenuata
N; Alternate names: head activator
C; Species: Hydra attenuata
C;Date: 20-Jun-2000 #sequence revision 20-Jun-2000 #text change 20-Jun-2000
C; Accession: B93900; A01427
R; Schaller, H.C.; Bodenmuller, H.
Proc. Natl. Acad. Sci. U.S.A. 78, 7000-7004, 1981
A; Title: Isolation and amino acid sequence of a morphogenetic peptide from
hydra.
A; Reference number: A93900
A; Accession: B93900
A; Molecule type: protein
A; Residues: 1-11 <SCH>
R; Birr, C.; Zachmann, B.; Bodenmuller, H.; Schaller, H.C.
FEBS Lett. 131, 317-321, 1981
A; Title: Synthesis of a new neuropeptide, the head activator from hydra.
A; Reference number: A91296; MUID: 82050803; PMID: 7297679
A; Contents: annotation; synthesis
A; Note: the synthetic peptide was identical with the natural peptide in chemical
structure and biological activity
C; Comment: This peptide was first isolated from nerve cells of hydra and was
called head activator because it induced head-specific growth and
differentiation in this animal. It has also been found in mammalian intestine
and hypothalamus.
C; Superfamily: unassigned animal peptides
C; Keywords: growth factor; hormone; neuropeptide; pyroglutamic acid
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
  Query Match
                           9.1%; Score 1; DB 2; Length 11;
  Best Local Similarity
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             1; Conservative
                                                                 0; Gaps
  Matches
                               0; Mismatches
                                                  0; Indels
                                                                              0;
            4 S 4
Qy
            6 S 6
Db
RESULT 71
A61365
phyllokinin - Rohde's leaf frog
N; Alternate names: bradykinyl-isoleucyl-tyrosine O-sulfate
C; Species: Phyllomedusa rohdei (Rohde's leaf frog)
C;Date: 09-Sep-1994 #sequence revision 09-Sep-1994 #text change 18-Aug-2000
C; Accession: A61365
R; Anastasi, A.; Bertaccini, G.; Erspamer, V.
Br. J. Pharmacol. 27, 479-485, 1966
A; Title: Pharmacological data on phyllokinin (bradykinyl-isoleucyl-tyrosine O-
sulphate) and bradykinyl-isoleucyl-tyrosine.
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A; Reference number: A61365; MUID: 67179312; PMID: 5970899
A:Accession: A61365
A; Status: preliminary
A; Molecule type: protein
A; Residues: 1-11 <ANA>
C; Superfamily: unassigned animal peptides
C; Keywords: sulfoprotein
F;11/Binding site: sulfate (Tyr) (covalent) #status experimental
                           9.1%; Score 1; DB 2; Length 11;
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                          100.0%; Pred. No. 2e+05;
  Best Local Similarity
                                                                              0;
                               0; Mismatches
                                                  0; Indels
                                                                  0; Gaps
            1; Conservative
            2 R 2
Qy.
            1 R 1
Db
RESULT 72
S23308
substance P - rainbow trout
C; Species: Oncorhynchus mykiss (rainbow trout)
C;Date: 19-Mar-1997 #sequence revision 19-Mar-1997 #text_change 18-Aug-2000
C; Accession: S23308
R; Jensen, J.; Conlon, J.M.
Eur. J. Biochem. 206, 659-664, 1992
A; Title: Substance-P-related and neurokinin-A-related peptides from the brain of
the cod and trout.
A; Reference number: S23186; MUID: 92298992; PMID: 1376687
A; Accession: S23308
A; Molecule type: protein
A; Residues: 1-11 <JEN>
A; Experimental source: brain
C; Function:
A; Description: may play a physiological role in the regulation of cardiovascular
and gastrointestinal functions
A; Note: substance P is derived by post-translational processing of
preprotachykinin A
C; Superfamily: unassigned animal peptides
C; Keywords: neuropeptide; amidated carboxyl end; tachykinin
F;11/Modified site: amidated carboxyl end (Met) #status predicted
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  Query Match
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  Best Local Similarity
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                                                 0; Indels
             1; Conservative
  Matches
                               0; Mismatches
            3 K 3
Qу
              -
             1 K 1
Db
RESULT 73
 S23306
 substance P - Atlantic cod
 C; Species: Gadus morhua (Atlantic cod)
 C;Date: 19-Mar-1997 #sequence revision 19-Mar-1997 #text change 18-Aug-2000
 C; Accession: S23306
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Eur. J. Biochem. 206, 659-664, 1992
A; Title: Substance-P-related and neurokinin-A-related peptides from the brain of
the cod and trout.
A; Reference number: S23186; MUID: 92298992; PMID: 1376687
A; Accession: S23306
A; Molecule type: protein
A; Residues: 1-11 <JEN>
A; Experimental source: brain
C; Function:
A; Description: may play a physiological role in the regulation of cardiovascular
and gastrointestinal functions
A; Note: substance P is derived by post-translational processing of
preprotachykinin A
C; Superfamily: unassigned animal peptides
C; Keywords: neuropeptide; amidated carboxyl end; tachykinin
F;11/Modified site: amidated carboxyl end (Met) #status predicted
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                                                    Length 11;
  Query Match
                          100.0%; Pred. No. 2e+05;
  Best Local Similarity
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                                                                              0;
  Matches
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                                 0; Mismatches
                                                 0; Indels
            3 K 3
Qу
            1 K 1
Db
RESULT 74
B60409
kassinin-like peptide K-I - frog (Pseudophryne guentheri)
C; Species: Pseudophryne guentheri
C; Date: 30-Jan-1993 #sequence revision 30-Jan-1993 #text change 18-Aug-2000
C; Accession: B60409
R; Simmaco, M.; Severini, C.; De Biase, D.; Barra, D.; Bossa, F.; Roberts, J.D.;
Melchiorri, P.; Erspamer, V.
Peptides 11, 299-304, 1990
A; Title: Six novel tachykinin- and bombesin-related peptides from the skin of
the Australian frog Pseudophryne guentheri.
A; Reference number: A60409; MUID: 90287814; PMID: 2356157
A; Accession: B60409
A; Molecule type: protein
A; Residues: 1-11 <SIM>
A; Note: this peptide was also found in a deamidated form
C; Superfamily: unassigned animal peptides
C; Keywords: amidated carboxyl end; pyroglutamic acid
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
F;11/Modified site: amidated carboxyl end (Met) (partial) #status experimental
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  Query Match
  Best Local Similarity
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                                                                  0; Gaps
                                 0; Mismatches
                                                    0; Indels
                                                                               0;
  Matches
             1; Conservative
            6 D 6
Qy
Db
            5 D 5
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R; Jensen, J.; Conlon, J.M.

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RESULT 75
C60409
kassinin-like peptide K-II - frog (Pseudophryne guentheri)
C; Species: Pseudophryne guentheri
C;Date: 30-Jan-1993 #sequence revision 30-Jan-1993 #text change 18-Aug-2000
C; Accession: C60409
R; Simmaco, M.; Severini, C.; De Biase, D.; Barra, D.; Bossa, F.; Roberts, J.D.;
Melchiorri, P.; Erspamer, V.
Peptides 11, 299-304, 1990
A; Title: Six novel tachykinin- and bombesin-related peptides from the skin of
the Australian frog Pseudophryne guentheri.
A; Reference number: A60409; MUID: 90287814; PMID: 2356157
A; Accession: C60409
A; Molecule type: protein
A; Residues: 1-11 <SIM>
A; Note: this peptide was also found in a deamidated form
C; Superfamily: unassigned animal peptides
C; Keywords: amidated carboxyl end; pyroglutamic acid
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
F;11/Modified site: amidated carboxyl end (Met) (partial) #status experimental
  Query Match
                           9.1%; Score 1; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 2e+05;
                                 0; Mismatches
                                                   0; Indels
 Matches
             1; Conservative
                                                                      Gaps
            6 D 6
Qу
Db
            5 D 5
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Search completed: April 8, 2004, 15:49:29
Job time: 9.61538 secs

GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd.

OM protein - protein search, using sw model

Run on: April 8, 2004, 15:47:33; Search time 30.3077 Seconds

(without alignments)

95.432 Million cell updates/sec

Title: US-09-787-443A-22

Perfect score: 11

Sequence: 1 ARKSRDMTAIK 11

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Gapop 60.0 , Gapext 60.0

Searched: 1073127 seqs, 262937947 residues

Word size: 0

Total number of hits satisfying chosen parameters: 9223

Minimum DB seq length: 11 Maximum DB seq length: 11

Post-processing: Listing first 100 summaries

Database: Published Applications AA:*

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed,

and is derived by analysis of the total score distribution.

SUMMARIES

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No. Score Match Length DB ID

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ALIGNMENTS

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US-10-344-878-5

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- ; Publication No. US20040053848A1
- ; GENERAL INFORMATION:
- ; APPLICANT: The University of Virginia Patent Foundation
- ; APPLICANT: Allis, C. David ; APPLICANT: Strahl, Brian D

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TITLE OF INVENTION: Antibodies Specific for Methylated Lysines in Histones
  FILE REFERENCE: 00601-02
  CURRENT APPLICATION NUMBER: US/10/344,878
  CURRENT FILING DATE: 2003-08-14
  PRIOR APPLICATION NUMBER: US 60/227,767
  PRIOR FILING DATE: 2000-08-25
  PRIOR APPLICATION NUMBER: US 60/302,747
  PRIOR FILING DATE: 2001-07-03
  NUMBER OF SEQ ID NOS: 18
  SOFTWARE: PatentIn version 3.1
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   NAME/KEY: MOD RES
   LOCATION: (5)..(5)
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; Publication No. US20040053848A1
; GENERAL INFORMATION:
 APPLICANT: The University of Virginia Patent Foundation
  APPLICANT: Allis, C. David
  APPLICANT: Strahl, Brian D
  TITLE OF INVENTION: Antibodies Specific for Methylated Lysines in Histones
  FILE REFERENCE: 00601-02
  CURRENT APPLICATION NUMBER: US/10/344,878
  CURRENT FILING DATE: 2003-08-14
  PRIOR APPLICATION NUMBER: US 60/227,767
  PRIOR FILING DATE: 2000-08-25
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; Publication No. US20020119447A1
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    APPLICANT: JOHN N. SIMONS
    APPLICANT: TAMI J. PILOT-MATIAS
    APPLICANT: GEORGE J. DAWSON
    APPLICANT: GEORGE G. SCHLAUDER
                SURESH M. DESAI
    APPLICANT:
    APPLICANT:
                THOMAS P. LEARY
                ANTHONY SCOTT MUERHOFF
    APPLICANT:
                JAMES C. ERKER
    APPLICANT:
    APPLICANT: SHERI L. BUIJK
    APPLICANT: ISA K. MUSHAHWAR
    TITLE OF INVENTION: NON-A, NON-B. NON-C, NON-D, NON-E HEPATITIS
    TITLE OF INVENTION: REAGENTS AND METHODS FOR THEIR USE
    NUMBER OF SEQUENCES: 716
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: ABBOTT LABORATORIES D377/AP6D
      STREET: 100 ABBOTT PARK ROAD
      CITY: ABBOTT PARK
;
      STATE: IL
;
      COUNTRY: USA
      ZIP: 60064-3500
     COMPUTER READABLE FORM:
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     CLASSIFICATION:
                       435435
    ATTORNEY/AGENT INFORMATION:
     NAME: POREMBSKI, PRISCILLA E.
      REGISTRATION NUMBER: 33,207
      REFERENCE/DOCKET NUMBER: 5527.PC.01
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 708-937-6365
      TELEFAX: 708-938-2623
  INFORMATION FOR SEQ ID NO: 550:
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; APPLICANT: Societe de Conseils de Recherches et D'Applications Scientifiques
; APPLICANT: Ferrer, Camara Y.
  TITLE OF INVENTION: Rational Selection of Putative Peptides from Identified
Nucleotide or
; TITLE OF INVENTION: Peptide Sequences
; FILE REFERENCE: 58767.000005
  CURRENT APPLICATION NUMBER: US/09/935,682
  CURRENT FILING DATE: 2001-08-24
   PRIOR APPLICATION NUMBER: 09/257,525
  PRIOR FILING DATE: 1999-02-25
; PRIOR APPLICATION NUMBER: PCT/FR00/00460
  PRIOR FILING DATE: 2000-02-24
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; APPLICANT: Societe de Conseils de Recherches et D'Applications Scientifiques
; APPLICANT: Ferrer, Camara Y.
  TITLE OF INVENTION: Rational Selection of Putative Peptides from Identified
Nucleotide or
; TITLE OF INVENTION: Peptide Sequences
  FILE REFERENCE: 58767.000005
; CURRENT APPLICATION NUMBER: US/09/935,682
; CURRENT FILING DATE: 2001-08-24
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; GENERAL INFORMATION:
; APPLICANT: Nestor, John
; APPLICANT: Wilson, Carol
 APPLICANT: See, Raymond
  APPLICANT: Tan Hehir, Christina
  TITLE OF INVENTION: Binding Compounds and Methods For Identifying Binding
Compounds
; FILE REFERENCE: CNS-005
; CURRENT APPLICATION NUMBER: US/09/813,653
  CURRENT FILING DATE: 2001-03-20
; PRIOR APPLICATION NUMBER: US 60/190,946
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; APPLICANT: Osbourn, Jane
  APPLICANT: Holet, Thor
   TITLE OF INVENTION: Improvements to ribosome display
  FILE REFERENCE: 84633
   CURRENT APPLICATION NUMBER: US/09/817,661
   CURRENT FILING DATE: 2001-03-26
   PRIOR APPLICATION NUMBER: US 60/193,802
  PRIOR FILING DATE: 2000-03-31
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; Patent No. US20020077289A1
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; GENERAL INFORMATION:
 APPLICANT: MacDonald, Nicholas J.
  APPLICANT: Sim, Kim L.
  TITLE OF INVENTION: Angiostatin and Endostatin Binding Proteins and Methods
of Use
  FILE REFERENCE: 05213-0378 (43170-259333)
  CURRENT APPLICATION NUMBER: US/09/873,676
  CURRENT FILING DATE: 2001-06-04
  PRIOR APPLICATION NUMBER: US 60/209,065
  PRIOR FILING DATE: 2000-06-02
  PRIOR APPLICATION NUMBER: US 60/289,387
  PRIOR FILING DATE: 2001-05-08
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          3; Conservative 0; Mismatches 0; Indels
                                                                0;
                                                                    Gaps
           9 AIK 11
Qу
             5 AIK 7
Db
RESULT 9
US-09-810-873-2
; Sequence 2, Application US/09810873
; Patent No. US20020106383A1
; GENERAL INFORMATION:
; APPLICANT: Mandrell, David
; APPLICANT: Bates, Anna
; APPLICANT: Brandon, David
; TITLE OF INVENTION: Monoclonal Antibodies Against Campylobacter jejuni and
Campylobacter coli
; TITLE OF INVENTION: Outer Membrane Antigens
  FILE REFERENCE: Mandrell
  CURRENT APPLICATION NUMBER: US/09/810,873
  CURRENT FILING DATE: 2001-03-16
  PRIOR APPLICATION NUMBER: 09/277,599
; PRIOR FILING DATE: 1999-03-26
 NUMBER OF SEQ ID NOS: 2
  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 2
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Campylobacter jejuni
   NAME/KEY: misc feature
   LOCATION: ()..()
    OTHER INFORMATION: The undetermined amino acid may or may not exist
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27.3%; Score 3; DB 9; Length 11;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 6.4e+03;
                                                                            0;
                              0; Mismatches 0; Indels
                                                                0; Gaps
 Matches
           3; Conservative
           9 AIK 11
Qу
             +11
           7 AIK 9
RESULT 10
US-09-758-128-25
; Sequence 25, Application US/09758128
; Patent No. US20020107187A1
; GENERAL INFORMATION:
  APPLICANT: KINGSTON, David J.
  APPLICANT: GERRATY, No. US20020107187A1man L.
  APPLICANT: WESTBROOK, Simon L.
  TITLE OF INVENTION: MODULATING THE ACTIVITY OF HORMONES OR THEIR RECEPTORS
  TITLE OF INVENTION: - PEPTIDES, ANTIBODIES, VACCINES AND USES THEREOF
  FILE REFERENCE: 016786/0214
  CURRENT APPLICATION NUMBER: US/09/758,128
  CURRENT FILING DATE: 2001-01-12
  PRIOR APPLICATION NUMBER: 09/194,218
  PRIOR FILING DATE: 1999-02-05
  PRIOR APPLICATION NUMBER: AU PN9990
  PRIOR FILING DATE: 1996-05-22
 NUMBER OF SEO ID NOS: 58
  SOFTWARE: PatentIn Ver. 2.0
 SEO ID NO 25
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Mouse
US-09-758-128-25
                         27.3%; Score 3; DB 9; Length 11;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 6.4e+03;
            3; Conservative
                               0; Mismatches
                                                  0;
                                                     Indels
                                                                0;
                                                                    Gaps
                                                                            0;
            6 DMT 8
Qу
             \Pi
            7 DMT 9
RESULT 11
US-09-758-128-28
; Sequence 28, Application US/09758128
; Patent No. US20020107187A1
; GENERAL INFORMATION:
  APPLICANT: KINGSTON, David J.
; APPLICANT: GERRATY, No. US20020107187Alman L.
 APPLICANT: WESTBROOK, Simon L.
  TITLE OF INVENTION: MODULATING THE ACTIVITY OF HORMONES OR THEIR RECEPTORS
  TITLE OF INVENTION: - PEPTIDES, ANTIBODIES, VACCINES AND USES THEREOF
; FILE REFERENCE: 016786/0214
; CURRENT APPLICATION NUMBER: US/09/758,128
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CURRENT FILING DATE: 2001-01-12
  PRIOR APPLICATION NUMBER: 09/194,218
  PRIOR FILING DATE: 1999-02-05
; PRIOR APPLICATION NUMBER: AU PN9990
; PRIOR FILING DATE: 1996-05-22
; NUMBER OF SEQ ID NOS: 58
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 28
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Rat
US-09-758-128-28
                         27.3%; Score 3; DB 9; Length 11;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 6.4e+03;
           3; Conservative 0; Mismatches 0; Indels 0; Gaps
 Matches
                                                                         0;
           6 DMT 8
Qу
             7 DMT 9
Db
RESULT 12
US-09-949-196-16
; Sequence 16, Application US/09949196
; Patent No. US20020147145A1
; GENERAL INFORMATION:
  APPLICANT: Zealand Pharmaceuticals A/S
  TITLE OF INVENTION: MATERIALS AND METHODS RELATING TO THE DEGRADATION OF
Cdc25A IN RESPONSE
; TITLE OF INVENTION: TO DNA DAMAGE
 FILE REFERENCE: 55888 (45487)
; CURRENT APPLICATION NUMBER: US/09/949,196
; CURRENT FILING DATE: 2001-07-09
; NUMBER OF SEQ ID NOS: 45
  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 16
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   OTHER INFORMATION: Description of Artificial Sequence: synthetic peptide
sequence
US-09-949-196-16
 Query Match
                         27.3%; Score 3; DB 9; Length 11;
 Best Local Similarity 100.0%; Pred. No. 6.4e+03;
 Matches
           3; Conservative 0; Mismatches 0; Indels 0; Gaps
Qу
           1 ARK 3
             111
Db
           2 ARK 4
RESULT 13
US-09-071-838-212
; Sequence 212, Application US/09071838
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; Patent No. US20020152501A1
  GENERAL INFORMATION:
     APPLICANT: Fischer, Robert L.
     APPLICANT: Ohad, Nir
     APPLICANT: Kiyosue, Tomohiro
     APPLICANT: Yadegari, Ramin
     APPLICANT: Margossian, Linda
    APPLICANT: Harada, John
     APPLICANT: Goldberg, Robert B.
    TITLE OF INVENTION: Nucleic Acids That Control Seed and TITLE OF INVENTION: Fruit Development in Plants
     NUMBER OF SEQUENCES: 324
     CORRESPONDENCE ADDRESS:
       ADDRESSEE: Townsend and Townsend and Crew LLP
       STREET: Two Embarcadero Center, Eighth Floor
       CITY: San Francisco
       STATE: California
       COUNTRY: USA
       ZIP: 94111-3834
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
       COMPUTER: IBM PC compatible
       OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.30
     CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/09/071,838
       FILING DATE: 01-MAY-1998
      CLASSIFICATION: 800
    ATTORNEY/AGENT INFORMATION:
     NAME: Bastian, Kevin L.
      REGISTRATION NUMBER: 34,774
      REFERENCE/DOCKET NUMBER: 023070-086100US
    TELECOMMUNICATION INFORMATION:
       TELEPHONE: (415) 576-0200
       TELEFAX: (415) 576-0300
   INFORMATION FOR SEQ ID NO: 212:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
       TYPE: amino acid
       TOPOLOGY: linear
     MOLECULE TYPE: peptide
US-09-071-838-212
  Query Match
                          27.3%; Score 3; DB 9; Length 11;
  Best Local Similarity 100.0%; Pred. No. 6.4e+03;
  Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps
                                                                               0;
            2 RKS 4
Qу
              \parallel \parallel \parallel \parallel
Db
            2 RKS 4
RESULT 14
US-09-758-426-25
; Sequence 25, Application US/09758426
; Patent No. US20020169116A1
; GENERAL INFORMATION:
```

```
APPLICANT: GERRATY, No. US20020169116A1man L.
  APPLICANT: WESTBROOK, Simon L.
  TITLE OF INVENTION: MODULATING THE ACTIVITY OF HORMONES OR THEIR RECEPTORS
  TITLE OF INVENTION: - PEPTIDES, ANTIBODIES, VACCINES AND USES THEREOF
  FILE REFERENCE: 016786/0214
   CURRENT APPLICATION NUMBER: US/09/758,426
   CURRENT FILING DATE: 2001-01-12
  PRIOR APPLICATION NUMBER: 09/194,218
   PRIOR FILING DATE: 1999-02-05
   PRIOR APPLICATION NUMBER: AU PN9990
  PRIOR FILING DATE: 1996-05-22
  NUMBER OF SEQ ID NOS: 58
  SOFTWARE: PatentIn Ver. 2.0
 SEQ ID NO 25
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Mouse
US-09-758-426-25
                        27.3%; Score 3; DB 9; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 6.4e+03;
          3; Conservative 0; Mismatches 0; Indels
           6 DMT 8
Qу
             111
           7 DMT 9
Db
RESULT 15
US-09-758-426-28
; Sequence 28, Application US/09758426
; Patent No. US20020169116A1
; GENERAL INFORMATION:
 APPLICANT: KINGSTON, David J.
  APPLICANT: GERRATY, No. US20020169116A1man L.
; APPLICANT: WESTBROOK, Simon L.
  TITLE OF INVENTION: MODULATING THE ACTIVITY OF HORMONES OR THEIR RECEPTORS
  TITLE OF INVENTION: - PEPTIDES, ANTIBODIES, VACCINES AND USES THEREOF
  FILE REFERENCE: 016786/0214
  CURRENT APPLICATION NUMBER: US/09/758,426
  CURRENT FILING DATE: 2001-01-12
  PRIOR APPLICATION NUMBER: 09/194,218
  PRIOR FILING DATE: 1999-02-05
  PRIOR APPLICATION NUMBER: AU PN9990
  PRIOR FILING DATE: 1996-05-22
  NUMBER OF SEQ ID NOS: 58
  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 28
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Rat
US-09-758-426-28
                         27.3%; Score 3; DB 9; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 6.4e+03;
           3; Conservative 0; Mismatches 0; Indels 0; Gaps
  Matches
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APPLICANT: KINGSTON, David J.

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6 DMT 8
Qу
              \perp
            7 DMT 9
Db
RESULT 16
US-09-758-198-25
; Sequence 25, Application US/09758198
; Publication No. US20020187925A1
; GENERAL INFORMATION:
  APPLICANT: KINGSTON, David J.
  APPLICANT: GERRATY, No. US20020187925A1man L.
  APPLICANT: WESTBROOK, Simon L.
  TITLE OF INVENTION: MODULATING THE ACTIVITY OF HORMONES OR THEIR RECEPTORS
  TITLE OF INVENTION: - PEPTIDES, ANTIBODIES, VACCINES AND USES THEREOF
  FILE REFERENCE: 016786/0214
; CURRENT APPLICATION NUMBER: US/09/758,198
  CURRENT FILING DATE: 2001-01-12
  PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: US/09/194,218
; PRIOR FILING DATE: EARLIER FILING DATE: 1999-02-05
; PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: PCT/AU97/00312
  PRIOR FILING DATE: EARLIER FILING DATE: 1997-05-22
 PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: AU PN9990
  PRIOR FILING DATE: EARLIER FILING DATE: 1996-05-22
  NUMBER OF SEQ ID NOS: 58
  SOFTWARE: PatentIn Ver. 2.0
 SEQ ID NO 25
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Mouse
US-09-758-198-25
                         27.3%; Score 3; DB 9; Length 11;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 6.4e+03;
           3; Conservative 0; Mismatches 0; Indels
                                                                0; Gaps
                                                                            0;
           6 DMT 8
Qу
             -111
           7 DMT 9
Db
RESULT 17
US-09-758-198-28
; Sequence 28, Application US/09758198
; Publication No. US20020187925A1
; GENERAL INFORMATION:
  APPLICANT: KINGSTON, David J.
  APPLICANT: GERRATY, No. US20020187925A1man L.
  APPLICANT: WESTBROOK, Simon L.
  TITLE OF INVENTION: MODULATING THE ACTIVITY OF HORMONES OR THEIR RECEPTORS
  TITLE OF INVENTION: - PEPTIDES, ANTIBODIES, VACCINES AND USES THEREOF
  FILE REFERENCE: 016786/0214
; CURRENT APPLICATION NUMBER: US/09/758,198
; CURRENT FILING DATE: 2001-01-12
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; PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: US/09/194,218

; PRIOR FILING DATE: EARLIER FILING DATE: 1999-02-05

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PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: PCT/AU97/00312
  PRIOR FILING DATE: EARLIER FILING DATE: 1997-05-22
  PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: AU PN9990
  PRIOR FILING DATE: EARLIER FILING DATE: 1996-05-22
; NUMBER OF SEQ ID NOS: 58
  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 28
   LENGTH: 11
    TYPE: PRT
   ORGANISM: Rat
US-09-758-198-28
  Query Match
                         27.3%; Score 3; DB 9; Length 11;
  Best Local Similarity 100.0%; Pred. No. 6.4e+03;
           3; Conservative 0; Mismatches 0; Indels
                                                                 0; Gaps
                                                                             0;
            6 DMT 8
Qу
              111
            7 DMT 9
Db
RESULT 18
US-09-983-802-567
; Sequence 567, Application US/09983802
; Publication No. US20030022185A1
; GENERAL INFORMATION:
  APPLICANT: Fischer et al.
  TITLE OF INVENTION: 123 Human Secreted Proteins
  FILE REFERENCE: PZ010P1
  CURRENT APPLICATION NUMBER: US/09/983,802
  CURRENT FILING DATE: 2001-10-25
  PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: 09/227,357
  PRIOR FILING DATE: EARLIER FILING DATE: 1999-01-08
  PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: PCT/US98/13684
  PRIOR FILING DATE: EARLIER FILING DATE: 1998-07-07
  PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: 60/051,926
  PRIOR FILING DATE: EARLIER FILING DATE: 1997-07-08
  PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: 60/052,793
  PRIOR FILING DATE: EARLIER FILING DATE: 1997-07-08
  PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: 60/051,925
  PRIOR FILING DATE: EARLIER FILING DATE: 1997-07-08
  PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: 60/051,929
  PRIOR FILING DATE: EARLIER FILING DATE: 1997-07-08
  PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: 60/052,803
  PRIOR FILING DATE: EARLIER FILING DATE: 1997-07-08
  PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: 60/052,732
  PRIOR FILING DATE: EARLIER FILING DATE: 1997-07-08
  PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: 60/051,931
  PRIOR FILING DATE: EARLIER FILING DATE: 1997-07-08
  PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: 60/051,932
  PRIOR FILING DATE: EARLIER FILING DATE: 1997-07-08
  PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: 60/051,916
  PRIOR FILING DATE: EARLIER FILING DATE: 1997-07-08
  PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: 60/051,930
; PRIOR FILING DATE: EARLIER FILING DATE: 1997-07-08
; PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: 60/051,918
  PRIOR FILING DATE: EARLIER FILING DATE: 1997-07-08
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PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: 60/051,920
   PRIOR FILING DATE: EARLIER FILING DATE: 1997-07-08
   PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: 60/052,733
   PRIOR FILING DATE: EARLIER FILING DATE: 1997-07-08
   PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: 60/052,795
   PRIOR FILING DATE: EARLIER FILING DATE: 1997-07-08
   PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: 60/051,919
   PRIOR FILING DATE: EARLIER FILING DATE: 1997-07-08
   PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: 60/051,928
   PRIOR FILING DATE: EARLIER FILING DATE: 1997-07-08
   PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: 60/055,722
   PRIOR FILING DATE: EARLIER FILING DATE: 1997-08-18
   PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: 60/055,723
   PRIOR FILING DATE: EARLIER FILING DATE: 1997-08-18
   PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: 60/055,948
  PRIOR FILING DATE: EARLIER FILING DATE: 1997-08-18
   PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: 60/055,949
  PRIOR FILING DATE: EARLIER FILING DATE: 1997-08-18
  PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: 60/055,953
   PRIOR FILING DATE: EARLIER FILING DATE: 1997-08-18
   PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: 60/055,950
  PRIOR FILING DATE: EARLIER FILING DATE: 1997-08-18
   PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: 60/055,947
  PRIOR FILING DATE: EARLIER FILING DATE: 1997-08-18
  PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: 60/055,964
   PRIOR FILING DATE: EARLIER FILING DATE: 1997-08-18
   PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: 60/056,360
   PRIOR FILING DATE: EARLIER FILING DATE: 1997-08-18
   PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: 60/055,684
   PRIOR FILING DATE: EARLIER FILING DATE: 1997-08-18
   PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: 60/055,984
   PRIOR FILING DATE: EARLIER FILING DATE: 1997-08-18
  PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: 60/055,954
  PRIOR FILING DATE: EARLIER FILING DATE: 1997-08-18
  PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: 60/058,785
   PRIOR FILING DATE: EARLIER FILING DATE: 1997-09-12
  PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: 60/058,664
; PRIOR FILING DATE: EARLIER FILING DATE: 1997-09-12
  PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: 60/058,660
  PRIOR FILING DATE: EARLIER FILING DATE: 1997-09-12
  PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: 60/058,661
  PRIOR FILING DATE: EARLIER FILING DATE: 1997-09-12
  NUMBER OF SEQ ID NOS: 672
  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 567
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Homo sapiens
US-09-983-802-567
 Query Match 27.3%; Score 3; DB 10; Length 11; Best Local Similarity 100.0%; Pred. No. 6.4e+03;
 Matches 3; Conservative 0; Mismatches 0; Indels
                                                                 0; Gaps
                                                                              0;
            9 AIK 11
Qy
             111
Db
            7 AIK 9
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RESULT 19
US-09-882-291-44
; Sequence 44, Application US/09882291
; Publication No. US20030040472A1
; GENERAL INFORMATION:
  APPLICANT: Zealand Pharmaceuticals A/S
   TITLE OF INVENTION: No. US20030040472Alel Peptide Conjugates
  FILE REFERENCE: 007-2001
  CURRENT APPLICATION NUMBER: US/09/882,291
  CURRENT FILING DATE: 2001-06-15
  NUMBER OF SEQ ID NOS: 77
  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 44
   LENGTH: 11
   TYPE: PRT
    ORGANISM: Artificial Sequence
    FEATURE:
    OTHER INFORMATION: Description of Artificial Sequence: synthetic peptide
sequence
US-09-882-291-44
  Query Match
                          27.3%; Score 3; DB 10; Length 11;
  Best Local Similarity 100.0%; Pred. No. 6.4e+03;
             3; Conservative
                                0; Mismatches
                                                 0; Indels
                                                                 0; Gaps
                                                                             0;
            1 ARK 3
Qу
             111
            2 ARK 4
Db
RESULT 20
US-09-861-661-25
; Sequence 25, Application US/09861661
; Publication No. US20030045676A1
; GENERAL INFORMATION:
; APPLICANT: KINGSTON, DAVID J.
; APPLICANT: GERRATY, NORMAN L.
  APPLICANT: WESTBROOK, SIMON L.
  TITLE OF INVENTION: PEPTIDES, ANTIBODIES, VACCINES & USES THEREOF
  FILE REFERENCE: 054270/0135
  CURRENT APPLICATION NUMBER: US/09/861,661
   CURRENT FILING DATE: 2001-05-22
  PRIOR APPLICATION NUMBER: 09/194,218
  PRIOR FILING DATE: 1999-02-05
  PRIOR APPLICATION NUMBER: AU PN9990
  PRIOR FILING DATE: 1996-05-22
  NUMBER OF SEQ ID NOS: 59
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 25
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Mus sp.
US-09-861-661-25
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27.3%; Score 3; DB 10; Length 11;

Query Match

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Best Local Similarity 100.0%; Pred. No. 6.4e+03;
           3; Conservative 0; Mismatches 0; Indels 0; Gaps
  Matches
                                                                            0;
           6 DMT 8
Qy
             111
           7 DMT 9
Db
RESULT 21
US-09-861-661-28
; Sequence 28, Application US/09861661
; Publication No. US20030045676A1
; GENERAL INFORMATION:
  APPLICANT: KINGSTON, DAVID J.
  APPLICANT: GERRATY, NORMAN L.
  APPLICANT: WESTBROOK, SIMON L.
  TITLE OF INVENTION: PEPTIDES, ANTIBODIES, VACCINES & USES THEREOF
  FILE REFERENCE: 054270/0135
  CURRENT APPLICATION NUMBER: US/09/861,661
; CURRENT FILING DATE: 2001-05-22
  PRIOR APPLICATION NUMBER: 09/194,218
  PRIOR FILING DATE: 1999-02-05
  PRIOR APPLICATION NUMBER: AU PN9990
  PRIOR FILING DATE: 1996-05-22
 NUMBER OF SEQ ID NOS: 59
  SOFTWARE: PatentIn Ver. 2.1
: SEO ID NO 28
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Rattus sp.
US-09-861-661-28
  Query Match
                         27.3%; Score 3; DB 10; Length 11;
  Best Local Similarity 100.0%; Pred. No. 6.4e+03;
           3; Conservative 0; Mismatches 0; Indels 0; Gaps
 Matches
                                                                           0;
           6 DMT 8
Qу
            111
Db
           7 DMT 9
RESULT 22
US-09-809-391-698
; Sequence 698, Application US/09809391
; Publication No. US20030049618A1
; GENERAL INFORMATION:
 APPLICANT: Ruben et al.
  TITLE OF INVENTION: 186 Human Secreted proteins
  FILE REFERENCE: PZ002P2
  CURRENT APPLICATION NUMBER: US/09/809,391
  CURRENT FILING DATE: 2001-03-16
  Prior application data removed - consult PALM or file wrapper
;
  NUMBER OF SEQ ID NOS: 761
  SOFTWARE: PatentIn Ver. 2.0
; SEO ID NO 698
   LENGTH: 11
   TYPE: PRT
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ORGANISM: Homo sapiens
US-09-809-391-698
  Query Match
                         27.3%; Score 3; DB 10; Length 11;
  Best Local Similarity 100.0%; Pred. No. 6.4e+03;
           3; Conservative 0; Mismatches 0; Indels
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                                                                            0;
           9 AIK 11
Qу
             \mathbf{H}
Db
           4 AIK 6
RESULT 23
US-09-775-052-3
; Sequence 3, Application US/09775052
; Publication No. US20030054000A1
; GENERAL INFORMATION:
  APPLICANT: Dowdy, Steven F.
  TITLE OF INVENTION: ANTI-PATHOGEN SYSTEM AND METHODS OF USE THEREOF
  FİLE REFERENCE: 48881/1742
  CURRENT APPLICATION NUMBER: US/09/775,052
  CURRENT FILING DATE: 2001-02-01
  PRIOR APPLICATION NUMBER: 09/208,966
  PRIOR FILING DATE: 1998-12-10
  PRIOR APPLICATION NUMBER: 60/082,402
  PRIOR FILING DATE: 1998-04-20
  PRIOR APPLICATION NUMBER: 60/069.012
  PRIOR FILING DATE: 1997-12-10
; NUMBER OF SEQ ID NOS: 57
  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 3
   LENGTH: 11
   TYPE: PRT
   ORGANISM: human
US-09-775-052-3
                         27.3%; Score 3; DB 10; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 6.4e+03;
 Matches
           3; Conservative 0; Mismatches
                                                 0; Indels
                                                               0; Gaps
                                                                            0;
Qу
           1 ARK 3
             111
Db
           2 ARK 4
RESULT 24
US-09-847-946A-126
; Sequence 126, Application US/09847946A
; Publication No. US20030054999A1
; GENERAL INFORMATION:
 APPLICANT: May, Michael J
  APPLICANT: Ghosh, Sankar
; APPLICANT: Findeis, Mark A
; APPLICANT: Phillips, Kathryn
; APPLICANT:
              Hannig, Gerhard
 TITLE OF INVENTION: ANTI-INFLAMMATORY COMPOUNDS AND USES THEREOF
; FILE REFERENCE: PPI-119
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CURRENT APPLICATION NUMBER: US/09/847,946A
   CURRENT FILING DATE: 2001-05-02
   PRIOR APPLICATION NUMBER: 60/201,261
   PRIOR FILING DATE: 2000-05-02
  PRIOR APPLICATION NUMBER: 09/643,260
  PRIOR FILING DATE: 2000-08-22
  NUMBER OF SEQ ID NOS: 160
  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 126
   LENGTH: 11
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US-09-847-946A-126
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Qу
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RESULT 25
US-09-847-946A-127
; Sequence 127, Application US/09847946A
; Publication No. US20030054999A1
; GENERAL INFORMATION:
; APPLICANT: May, Michael J
 APPLICANT: Ghosh, Sankar
; APPLICANT: Findeis, Mark A
  APPLICANT: Phillips, Kathryn
;
  APPLICANT: Hannig, Gerhard
  TITLE OF INVENTION: ANTI-INFLAMMATORY COMPOUNDS AND USES THEREOF
  FILE REFERENCE: PPI-119
;
  CURRENT APPLICATION NUMBER: US/09/847,946A
  CURRENT FILING DATE: 2001-05-02
  PRIOR APPLICATION NUMBER: 60/201,261
  PRIOR FILING DATE: 2000-05-02
  PRIOR APPLICATION NUMBER: 09/643,260
  PRIOR FILING DATE: 2000-08-22
  NUMBER OF SEQ ID NOS: 160
  SOFTWARE: PatentIn Ver. 2.0
 SEQ ID NO 127
   LENGTH: 11
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   ORGANISM: Artificial Sequence
   FEATURE:
   OTHER INFORMATION: Description of Artificial Sequence: membrane
   OTHER INFORMATION: translocation domain
US-09-847-946A-127
 Query Match
                         27.3%; Score 3; DB 10; Length 11;
  Best Local Similarity
                         100.0%; Pred. No. 6.4e+03;
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3; Conservative
 Matches
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Qу
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            2 ARK 4
Db
RESULT 26
US-09-880-748-3177
; Sequence 3177, Application US/09880748
; Publication No. US20030059937A1
; GENERAL INFORMATION:
  APPLICANT: Ruben et al.
  TITLE OF INVENTION: Antibodies that Immunospecifically Bind BLyS
  FILE REFERENCE: PF523
  CURRENT APPLICATION NUMBER: US/09/880,748
  CURRENT FILING DATE: 2001-06-15
  PRIOR APPLICATION NUMBER: 60/212,210
  PRIOR FILING DATE: 2000-06-15
  PRIOR APPLICATION NUMBER: 60/240,816
  PRIOR FILING DATE: 2000-10-17
  PRIOR APPLICATION NUMBER: 60/276,248
  PRIOR FILING DATE: 2001-03-16
  PRIOR APPLICATION NUMBER: 60/277,379
  PRIOR FILING DATE: 2001-03-21
  PRIOR APPLICATION NUMBER: 60/293,499
  PRIOR FILING DATE: 2001-05-25
  NUMBER OF SEQ ID NOS: 3239
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   ORGANISM: Homo sapiens
US-09-880-748-3177
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Qy
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Db
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RESULT 27
US-09-876-904A-33
; Sequence 33, Application US/09876904A
; Publication No. US20030072794A1
; GENERAL INFORMATION:
; APPLICANT: BOULIKAS, TENI
  TITLE OF INVENTION: ENCAPSULATION OF PLASMID DNA (LIPOGENES TM) AND
THERAPEUTIC
; TITLE OF INVENTION: AGENTS WITH NUCLEAR LOCALIZATION SIGNAL/FUSOGENIC
PEPTIDE
; TITLE OF INVENTION: CONJUGATES INTO TARGETED LIPOSOME COMPLEXES
; FILE REFERENCE: TB-2002.00
; CURRENT APPLICATION NUMBER: US/09/876,904A
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CURRENT FILING DATE: 2001-06-08
  PRIOR APPLICATION NUMBER: US 60/210,925
  PRIOR FILING DATE: 2000-06-09
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  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 33
   LENGTH: 11
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    ORGANISM: Artificial Sequence
    FEATURE:
   OTHER INFORMATION: Description of Artificial Sequence: Synthetic Polyma
virus
    OTHER INFORMATION: major capsid protein VP1
US-09-876-904A-33
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            2 RKS 4
Qу
             +
            4 RKS 6
Db
RESULT 28
US-09-876-904A-236
; Sequence 236, Application US/09876904A
; Publication No. US20030072794A1
; GENERAL INFORMATION:
  APPLICANT: BOULIKAS, TENI
  TITLE OF INVENTION: ENCAPSULATION OF PLASMID DNA (LIPOGENES TM) AND
; TITLE OF INVENTION: AGENTS WITH NUCLEAR LOCALIZATION SIGNAL/FUSOGENIC
PEPTIDE
  TITLE OF INVENTION: CONJUGATES INTO TARGETED LIPOSOME COMPLEXES
  FILE REFERENCE: TB-2002.00
  CURRENT APPLICATION NUMBER: US/09/876,904A
  CURRENT FILING DATE: 2001-06-08
  PRIOR APPLICATION NUMBER: US 60/210,925
  PRIOR FILING DATE: 2000-06-09
  NUMBER OF SEQ ID NOS: 629
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; SEQ ID NO 236
   LENGTH: 11
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   TYPE: PRT
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   ORGANISM: Unknown Organism
   FEATURE:
   OTHER INFORMATION: Description of Unknown Organism: Hydrophilic protein
US-09-876-904A-236
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  Best Local Similarity
                         100.0%; Pred. No. 6.4e+03;
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Qy
           1 ARK 3
             111
Db
           7 ARK 9
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RESULT 29
US-09-876-904A-509
; Sequence 509, Application US/09876904A
; Publication No. US20030072794A1
; GENERAL INFORMATION:
  APPLICANT: BOULIKAS, TENI
  TITLE OF INVENTION: ENCAPSULATION OF PLASMID DNA (LIPOGENES TM) AND
  TITLE OF INVENTION: AGENTS WITH NUCLEAR LOCALIZATION SIGNAL/FUSOGENIC
PEPTIDE
  TITLE OF INVENTION: CONJUGATES INTO TARGETED LIPOSOME COMPLEXES
  FILE REFERENCE: TB-2002.00
   CURRENT APPLICATION NUMBER: US/09/876,904A
  CURRENT FILING DATE: 2001-06-08
  PRIOR APPLICATION NUMBER: US 60/210,925
  PRIOR FILING DATE: 2000-06-09
  NUMBER OF SEQ ID NOS: 629
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 509
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Unknown Organism
   FEATURE:
   OTHER INFORMATION: Description of Unknown Organism: Iq/EBP-1 (immunoqlobulin
   OTHER INFORMATION: gene enhancer-binding protein).
US-09-876-904A-509
 Query Match
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 Best Local Similarity
                          100.0%; Pred. No. 6.4e+03;
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                                                      Indels
                                                                 0; Gaps
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           3 KSR 5
Qу
              I + I
Db
            3 KSR 5
RESULT 30
US-09-972-656-6
; Sequence 6, Application US/09972656
; Publication No. US20030099647A1
; GENERAL INFORMATION:
  APPLICANT: Deshpande, Rajendra
  APPLICANT: Tsai, Mei-Mei
  TITLE OF INVENTION: Fully Human Antibody Fab Fragments with Human Interferon-
Gamma
  TITLE OF INVENTION: Neutralizing Activity
 FILE REFERENCE: A-799
  CURRENT APPLICATION NUMBER: US/09/972,656
  CURRENT FILING DATE: 2001-10-05
  NUMBER OF SEQ ID NOS: 135
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; SEQ ID NO 6
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Query Match
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Qу
             \perp
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Db
RESULT 31
US-09-802-083-10
; Sequence 10, Application US/09802083
; Publication No. US20030119075A1
; GENERAL INFORMATION:
  APPLICANT: Kirchhofer, Daniel K.
              Lowe, David G.
  APPLICANT:
; APPLICANT: Presta, Leonard G.
  TITLE OF INVENTION: Anti-Tissue Factor Antibodies with Enhanced
  TITLE OF INVENTION: Anticoagulant Potency
  FILE REFERENCE: P1736R1
  CURRENT APPLICATION NUMBER: US/09/802,083
  CURRENT FILING DATE: 2001-03-08
  PRIOR APPLICATION NUMBER: US 60/189,775
  PRIOR FILING DATE: 2000-03-16
  NUMBER OF SEQ ID NOS: 28
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  Best Local Similarity 100.0%; Pred. No. 6.4e+03;
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           4 SRD 6
Qу
             \Box\Box\Box
           3 SRD 5
RESULT 32
US-09-882-171-698
; Sequence 698, Application US/09882171
; Publication No. US20030175858A1
; GENERAL INFORMATION:
  APPLICANT: Ruben et al.
  TITLE OF INVENTION: 186 Human Secreted proteins
  FILE REFERENCE: PZ002P2
  CURRENT APPLICATION NUMBER: US/09/882,171
  CURRENT FILING DATE: 2001-06-18
  PRIOR APPLICATION NUMBER: 09/809,391
  PRIOR FILING DATE: 2001-03-16
  PRIOR APPLICATION NUMBER: 09/149,476
  PRIOR FILING DATE: 1998-09-08
   PRIOR APPLICATION NUMBER: PCT/US98/04493
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PRIOR FILING DATE: 1998-03-06
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- PRIOR APPLICATION NUMBER: 60/040,162
- PRIOR FILING DATE: 1997-03-07
- PRIOR APPLICATION NUMBER: 60/040,333
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- PRIOR APPLICATION NUMBER: 60/038,621
- PRIOR FILING DATE: 1997-03-07
- PRIOR APPLICATION NUMBER: 60/040,626
- PRIOR FILING DATE: 1997-03-07
- PRIOR APPLICATION NUMBER: 60/040,334
- PRIOR FILING DATE: 1997-03-07
- PRIOR APPLICATION NUMBER: 60/040,336
- PRIOR FILING DATE: 1997-03-07
- PRIOR APPLICATION NUMBER: 60/040,163
- PRIOR FILING DATE: 1997-03-07
- PRIOR APPLICATION NUMBER: 60/047,600
- PRIOR FILING DATE: 1997-05-23
- PRIOR APPLICATION NUMBER: 60/047,615
- PRIOR FILING DATE: 1997-05-23
- PRIOR APPLICATION NUMBER: 60/047,597
- PRIOR FILING DATE: 1997-05-23
- PRIOR APPLICATION NUMBER: 60/047,502
- PRIOR FILING DATE: 1997-05-23
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- PRIOR FILING DATE: 1997-05-23
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- PRIOR APPLICATION NUMBER: 60/047,500 PRIOR FILING DATE: 1997-05-23
- PRIOR APPLICATION NUMBER: 60/047,587
- PRIOR FILING DATE: 1997-05-23
- PRIOR APPLICATION NUMBER: 60/047,492
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- ; PRIOR APPLICATION NUMBER: 60/043,315
- ; PRIOR FILING DATE: 1997-04-11
- ; PRIOR APPLICATION NUMBER: 60/048,974
- ; PRIOR FILING DATE: 1997-06-06
- ; PRIOR APPLICATION NUMBER: 60/056,886
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- ; PRIOR APPLICATION NUMBER: 60/056,909
- ; PRIOR FILING DATE: 1997-08-22

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   PRIOR APPLICATION NUMBER: 60/056,887
   PRIOR FILING DATE: 1997-08-22
   PRIOR APPLICATION NUMBER: 60/056,908
   PRIOR FILING DATE: 1997-08-22
   PRIOR APPLICATION NUMBER: 60/048,964
   PRIOR FILING DATE: 1997-06-06
   PRIOR APPLICATION NUMBER: 60/057,650
   PRIOR FILING DATE: 1997-09-05
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   PRIOR FILING DATE: 1997-08-22
   PRIOR APPLICATION NUMBER: 60/057,669
  PRIOR FILING DATE: 1997-09-05
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                                                                  0; Gaps 0;
            9 AIK 11
Qу
              \mathbf{I} \mathbf{I} \mathbf{I}
Db
            4 AIK 6
RESULT 33
US-09-973-278-398
; Sequence 398, Application US/09973278
; Publication No. US20040044191A1
; GENERAL INFORMATION:
  APPLICANT: Fischer et al.
  TITLE OF INVENTION: 123 Human Secreted Proteins
   FILE REFERENCE: PZ010P2
   CURRENT APPLICATION NUMBER: US/09/973,278
   CURRENT FILING DATE: 2001-10-10
   PRIOR APPLICATION NUMBER: 60/239,899
   PRIOR FILING DATE: 2000-10-13
   PRIOR APPLICATION NUMBER: 09/227,357
   PRIOR FILING DATE: 1999-01-08
   PRIOR APPLICATION NUMBER: PCT/US98/13684
   PRIOR FILING DATE: 1998-07-07
   PRIOR APPLICATION NUMBER: 60/051,926
   PRIOR FILING DATE: 1997-07-08
   PRIOR APPLICATION NUMBER: 60/052,793
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- ; PRIOR APPLICATION NUMBER: 60/055,950
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- ; PRIOR APPLICATION NUMBER: 60/055,947
- ; PRIOR FILING DATE: 1997-08-18
- ; PRIOR APPLICATION NUMBER: 60/055,964
- ; PRIOR FILING DATE: 1997-08-18
- ; PRIOR APPLICATION NUMBER: 60/056,360
- ; PRIOR FILING DATE: 1997-08-18
- ; PRIOR APPLICATION NUMBER: 60/055,684
- ; PRIOR FILING DATE: 1997-08-18
- ; PRIOR APPLICATION NUMBER: 60/055,984
- ; PRIOR FILING DATE: 1997-08-18
- ; PRIOR APPLICATION NUMBER: 60/055,954
- ; PRIOR FILING DATE: 1997-08-18
- ; PRIOR APPLICATION NUMBER: 60/058,785
- ; PRIOR FILING DATE: 1997-09-12
- ; PRIOR APPLICATION NUMBER: 60/058,664
- ; PRIOR FILING DATE: 1997-09-12
- ; PRIOR APPLICATION NUMBER: 60/058,660
- ; PRIOR FILING DATE: 1997-09-12
- ; PRIOR APPLICATION NUMBER: 60/058,661
- ; PRIOR FILING DATE: 1997-09-12
- ; NUMBER OF SEQ ID NOS: 947
- ; SOFTWARE: PatentIn Ver. 2.0
- ; SEQ ID NO 398
- ; LENGTH: 11
- ; TYPE: PRT
- ; ORGANISM: Homo sapiens

US-09-973-278-398

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Query Match
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Qу
             - 111
           7 AIK 9
Db
RESULT 34
US-10-362-527-63
; Sequence 63, Application US/10362527
; Publication No. US20040030106A1
; GENERAL INFORMATION:
; APPLICANT: Friede, Martin
; APPLICANT: Mason, Sean
; APPLICANT: Turnell, William Gordon
  APPLICANT: Vinals Y De Bassols, Carlota
  TITLE OF INVENTION: Vaccine Immunogens Comprising Disulphide Bridged Cyclised
Peptide
; TITLE OF INVENTION: and Use Thereof in the Treatment of Allergies
; FILE REFERENCE: B45236
; CURRENT APPLICATION NUMBER: US/10/362,527
; CURRENT FILING DATE: 2003-02-21
; PRIOR APPLICATION NUMBER: PCT/EP01/09576
  PRIOR FILING DATE: 2001-08-17
  PRIOR APPLICATION NUMBER: GB 0020717.5
  PRIOR FILING DATE: 2000-08-22
; NUMBER OF SEQ ID NOS: 328
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 63
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   ORGANISM: Homo sapiens
US-10-362-527-63
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Qу
           4 SRD 6
             \perp
           6 SRD 8
RESULT 35
US-10-430-685-39
; Sequence 39, Application US/10430685
; Publication No. US20040039543A1
; GENERAL INFORMATION:
; APPLICANT: KECK, Peter
  TITLE OF INVENTION: COMPUTER METHOD AND APPARATUS FOR CLASSIFYING OBJECTS
  FILE REFERENCE: 63040-010210
; CURRENT APPLICATION NUMBER: US/10/430,685
; CURRENT FILING DATE: 2003-05-06
; PRIOR APPLICATION NUMBER: PCT/US01/44000
; PRIOR FILING DATE: 2001-11-06
```

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PRIOR APPLICATION NUMBER: 60/246,196
  PRIOR FILING DATE: 2000-11-06
; NUMBER OF SEQ ID NOS: 240
  SOFTWARE: PatentIn version 3.2
; SEQ ID NO 39
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Homo sapiens
US-10-430-685-39
  Query Match
                          27.3%; Score 3; DB 12; Length 11;
  Best Local Similarity
                         100.0%; Pred. No. 6.4e+03;
            3; Conservative
                                0; Mismatches
                                                  0; Indels
                                                                     Gaps
                                                                             0;
           2 RKS 4
Qу
              | | |
Db
           3 RKS 5
RESULT 36
US-10-398-616-4
; Sequence 4, Application US/10398616
; Publication No. US20040054143A1
; GENERAL INFORMATION:
  APPLICANT: Ark Therapeutics Ltd.
  TITLE OF INVENTION: VEGF Peptides and Their Use for Inhibiting Angiogenesis
  FILE REFERENCE: GJE-6525
  CURRENT APPLICATION NUMBER: US/10/398,616
  CURRENT FILING DATE: 2003-08-06
  PRIOR APPLICATION NUMBER: PCT/GB01/04736
  PRIOR FILING DATE: 2001-10-25
  NUMBER OF SEQ ID NOS: 21
  SOFTWARE: PatentIn version 3.2
; SEQ ID NO 4
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   FEATURE:
   OTHER INFORMATION: Oligopeptide
US-10-398-616-4
  Query Match
                          27.3%; Score 3; DB 12; Length 11;
  Best Local Similarity 100.0%; Pred. No. 6.4e+03;
           3; Conservative 0; Mismatches
                                                                 0; Gaps
                                                                             0;
  Matches
                                                0; Indels
            3 KSR 5
Qу
              \mathbf{H}
Db
            7 KSR 9
RESULT 37
US-10-398-616-10
; Sequence 10, Application US/10398616
; Publication No. US20040054143A1
; GENERAL INFORMATION:
  APPLICANT: Ark Therapeutics Ltd.
  TITLE OF INVENTION: VEGF Peptides and Their Use for Inhibiting Angiogenesis
```

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FILE REFERENCE: GJE-6525
  CURRENT APPLICATION NUMBER: US/10/398,616
  CURRENT FILING DATE: 2003-08-06
  PRIOR APPLICATION NUMBER: PCT/GB01/04736
  PRIOR FILING DATE: 2001-10-25
; NUMBER OF SEQ ID NOS: 21
  SOFTWARE: PatentIn version 3.2
; SEQ ID NO 10
   LENGTH: 11
    TYPE: PRT
   ORGANISM: Artificial Sequence
   FEATURE:
   OTHER INFORMATION: Oligopeptide
US-10-398-616-10
                         27.3%; Score 3; DB 12; Length 11;
  Query Match
                         100.0%; Pred. No. 6.4e+03;
  Best Local Similarity
            3; Conservative
                               0; Mismatches
                                                 0; Indels
                                                                0; Gaps
            3 KSR 5
Qу
             -111
Db
            6 KSR 8
RESULT 38
US-09-912-609-27
; Sequence 27, Application US/09912609
; Publication No. US20020041898A1
; GENERAL INFORMATION:
; APPLICANT: UNGER, EVAN C.
  APPLICANT: MATSUNAGA, TERRY ONICHI
  APPLICANT: RAMASWAMI, VARADARAJAN
  APPLICANT: ROMANOWSKI, MAREK J.
  TITLE OF INVENTION: NOVEL TARGETED DELIVERY SYSTEMS FOR BIOACTIVE AGENTS
  FILE REFERENCE: 5030-0001.24
  CURRENT APPLICATION NUMBER: US/09/912,609
  CURRENT FILING DATE: 2001-07-25
  PRIOR APPLICATION NUMBER: 09/703,474
  PRIOR FILING DATE: 2000-10-31
  PRIOR APPLICATION NUMBER: 09/478,124
  PRIOR FILING DATE: 2000-01-05
  NUMBER OF SEQ ID NOS: 131
  SOFTWARE: PatentIn Ver. 2.1
 SEQ ID NO 27
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
    OTHER INFORMATION: Description of Artificial Sequence: Synthetic
    OTHER INFORMATION: peptide
US-09-912-609-27
                         27.3%; Score 3; DB 12; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 6.4e+03;
            3; Conservative 0; Mismatches
                                                  0; Indels
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RESULT 39
US-10-060-019-1
; Sequence 1, Application US/10060019
; Publication No. US20030003564A1
; GENERAL INFORMATION:
  APPLICANT: Tyers, Mike
  APPLICANT: Willems, Andrew
  TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR MODULATING UBIQUITIN
  TITLE OF INVENTION: DEPENDENT PROTEOLYSIS
  FILE REFERENCE: 11757.10USU1
  CURRENT APPLICATION NUMBER: US/10/060,019
  CURRENT FILING DATE: 2002-01-29
  PRIOR APPLICATION NUMBER: US/09/177,165
  PRIOR FILING DATE: 1998-10-22
; PRIOR APPLICATION NUMBER: 60/092,443
  PRIOR FILING DATE: 1998-07-10
  PRIOR APPLICATION NUMBER: 60/063,254
; PRIOR FILING DATE: 1997-10-24
; NUMBER OF SEQ ID NOS: 50
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 1
   LENGTH: 11
    TYPE: PRT
    ORGANISM: Saccharomyces cerevisiae
US-10-060-019-1
  Query Match
                          27.3%; Score 3; DB 14; Length 11;
  Best Local Similarity 100.0%; Pred. No. 6.4e+03;
  Matches
            3; Conservative
                               0; Mismatches 0; Indels
                                                                 0; Gaps
                                                                             0;
Qу
            8 TAI 10
             111
            4 TAI 6
Dh
RESULT 40
US-10-211-069-56
; Sequence 56, Application US/10211069
; Publication No. US20030021797A1
; GENERAL INFORMATION:
; APPLICANT: DATTA, Syamal K
  APPLICANT: KALIYAPERUMAL, Arunan
  TITLE OF INVENTION: LOCALIZATION OF MAJOR PEPTIDE AUTOEPITOPES FOR NUCLEOSOME
SPECIF
  TITLE OF INVENTION: IC T CELLS OF SYSTEMIC LUPUS ERYTHEMATOSUS
  FILE REFERENCE: 290-13U1 (53662-5017
  CURRENT APPLICATION NUMBER: US/10/211,069
  CURRENT FILING DATE: 2002-08-02
  PRIOR APPLICATION NUMBER: US/09/561,490
  PRIOR FILING DATE: 2000-04-28
  PRIOR APPLICATION NUMBER: US 60/131,448
 PRIOR FILING DATE: 1999-04-28
  NUMBER OF SEQ ID NOS: 61
```

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SOFTWARE: PatentIn version 3.1
; SEQ ID NO 56
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial sequence
    OTHER INFORMATION: Histone fragment
US-10-211-069-56
  Query Match
                          27.3%; Score 3; DB 14; Length 11;
                         100.0%; Pred. No. 6.4e+03;
  Best Local Similarity
 Matches
            3; Conservative 0; Mismatches
                                                0; Indels
                                                                 0; Gaps
                                                                             0;
            3 KSR 5
Qу
             +++
            9 KSR 11
Db
RESULT 41
US-10-062-710-168
; Sequence 168, Application US/10062710
; Publication No. US20030049253A1
; GENERAL INFORMATION:
  APPLICANT: Li, Frank Q.
  APPLICANT: Chu, Yong-Liang
  APPLICANT: Qiu, Jian-Tai
  TITLE OF INVENTION: Polymeric Conjugates for Delivery of
  TITLE OF INVENTION: MHC-Recognized Epitopes
  TITLE OF INVENTION: Via Peptide Vaccines
  FILE REFERENCE: 3781-001-27
  CURRENT APPLICATION NUMBER: US/10/062,710
  CURRENT FILING DATE: 2002-02-05
  PRIOR APPLICATION NUMBER: US 60/310,498
  PRIOR FILING DATE: 2001-08-08
  NUMBER OF SEQ ID NOS: 232
  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 168
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   FEATURE:
    OTHER INFORMATION: HIV B Cell Epitopes
US-10-062-710-168
  Query Match
                          27.3%; Score 3; DB 14; Length 11;
  Best Local Similarity
                         100.0%; Pred. No. 6.4e+03;
            3; Conservative
                              0; Mismatches
                                                  0; Indels
                                                                 0; Gaps
            4 SRD 6
Qy
              111
            5 SRD 7
Db
RESULT 42
US-10-229-915-21
; Sequence 21, Application US/10229915
; Publication No. US20030083262A1
```

```
; GENERAL INFORMATION:
  APPLICANT: Lazarus, Douglas
  APPLICANT: Hannig, Gerhard
  TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR TREATING INFLAMMATORY
  TITLE OF INVENTION: DISORDERS
  FILE REFERENCE: PPI-127
  CURRENT APPLICATION NUMBER: US/10/229,915
  CURRENT FILING DATE: 2002-08-27
  PRIOR APPLICATION NUMBER: US 60/316,328
  PRIOR FILING DATE: 2001-08-30
  NUMBER OF SEQ ID NOS: 39
  SOFTWARE: FastSEQ for Windows Version 4.0
 SEQ ID NO 21
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   OTHER INFORMATION: anti-inflammatory compound
US-10-229-915-21
 Query Match
                         27.3%; Score 3; DB 14; Length 11;
  Best Local Similarity 100.0%; Pred. No. 6.4e+03;
           3; Conservative 0; Mismatches
                                                  0; Indels
                                                                0; Gaps
           1 ARK 3
Qу
             2 ARK 4
Db
RESULT 43
US-10-227-616-68
; Sequence 68, Application US/10227616
; Publication No. US20030099662A1
; GENERAL INFORMATION:
  APPLICANT: Boyd, Robert Simon
  APPLICANT:
             Stamps, Alasdair Craig
; APPLICANT: Terrett, Jonathan Alexander
  TITLE OF INVENTION: Proteins
  FILE REFERENCE: 2543-1-028
  CURRENT APPLICATION NUMBER: US/10/227,616
  CURRENT FILING DATE: 2002-08-23
  PRIOR APPLICATION NUMBER: GB 0004576.5
  PRIOR FILING DATE: 2000-02-25
  PRIOR APPLICATION NUMBER: GB 0031341.1
  PRIOR FILING DATE: 2000-12-21
; NUMBER OF SEQ ID NOS: 110
 SOFTWARE: PatentIn version 3.0
; SEQ ID NO 68
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Homo sapiens
US-10-227-616-68
 Query Match
                         27.3%; Score 3; DB 14; Length 11;
 Best Local Similarity 100.0%; Pred. No. 6.4e+03;
            3; Conservative
                               0; Mismatches
                                                0; Indels
                                                               0; Gaps
                                                                           0:
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```
9 AIK 11
Qу
             -111
Db
            9 AIK 11
RESULT 44
US-10-211-088-202
; Sequence 202, Application US/10211088
; Publication No. US20030104479A1
; GENERAL INFORMATION:
; APPLICANT: Bright, Gary R.
; APPLICANT: Premkumar, D. David
  APPLICANT: Chen, Yih-Tai
  TITLE OF INVENTION: No. US20030104479Alel Fusion Proteins And Assays For
Molecular Binding
; FILE REFERENCE: 01-1022-US
  CURRENT APPLICATION NUMBER: US/10/211,088
  CURRENT FILING DATE: 2002-10-15
; PRIOR APPLICATION NUMBER: 60/309,395
; PRIOR FILING DATE: 2001-08-01
; PRIOR APPLICATION NUMBER: 60/341,589
; PRIOR FILING DATE: 2001-12-13
  NUMBER OF SEQ ID NOS: 366
  SOFTWARE: PatentIn version 3.1
; SEO ID NO 202
   LENGTH: 11
;
    TYPE: PRT
    ORGANISM: Artificial sequence
    OTHER INFORMATION: Nuclear localization signal
US-10-211-088-202
                          27.3%; Score 3; DB 14; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 6.4e+03;
  Matches
           3; Conservative 0; Mismatches 0; Indels
                                                                0; Gaps
            2 RKS 4
Qу
              111
            4 RKS 6
RESULT 45
US-10-136-738-2
; Sequence 2, Application US/10136738
; Publication No. US20030108886A1
; GENERAL INFORMATION:
  APPLICANT: Finn, John
  APPLICANT: MacLachlan, Ian
   APPLICANT: Protiva Biotherapeutics Inc.
   TITLE OF INVENTION: Autogene Nucleic Acids Encoding a
   TITLE OF INVENTION: Secretable RNA Polymerase
   FILE REFERENCE: 020801-000310US
; CURRENT APPLICATION NUMBER: US/10/136,738
   CURRENT FILING DATE: 2002-04-30
; PRIOR APPLICATION NUMBER: US 60/287,974
; PRIOR FILING DATE: 2001-04-30
```

NUMBER OF SEQ ID NOS: 47

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SOFTWARE: FastSEQ for Windows Version 3.0
 SEQ ID NO 2
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   FEATURE:
   OTHER INFORMATION: HIV-Tat variant secretion domain
US-10-136-738-2
  Query Match
                         27.3%; Score 3; DB 14; Length 11;
 Best Local Similarity 100.0%; Pred. No. 6.4e+03;
            3; Conservative 0; Mismatches
                                                0; Indels
                                                                0; Gaps
                                                                           0;
           1 ARK 3
Qу
             -111
           2 ARK 4
Db
RESULT 46
US-10-213-512-212
; Sequence 212, Application US/10213512
; Publication No. US20030110536A1
; GENERAL INFORMATION:
; APPLICANT: Fischer, Robert L.
 APPLICANT: Ohad, Nir
  APPLICANT: Kiyosue, Tomohiro
  APPLICANT: Yadegari, Ramin
  APPLICANT: Margossian, Linda
; APPLICANT: Harada, John
; APPLICANT: Goldberg, Robert B.
  APPLICANT: The Regents of the University of California
  TITLE OF INVENTION: Combinations of Nucleic Acids That Control Seed and
  TITLE OF INVENTION: Fruit Development in Plants
  FILE REFERENCE: 023070-086110US
  CURRENT APPLICATION NUMBER: US/10/213,512
  CURRENT FILING DATE: 2002-08-06
  PRIOR APPLICATION NUMBER: US/09/177,206
; PRIOR FILING DATE: 1998-10-22
; PRIOR APPLICATION NUMBER: US 09/071,838
; PRIOR FILING DATE: 1998-05-01
 NUMBER OF SEQ ID NOS: 324
 SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 212
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Arabidopsis sp.
US-10-213-512-212
  Query Match
                         27.3%; Score 3; DB 14; Length 11;
  Best Local Similarity
                         100.0%; Pred. No. 6.4e+03;
 Matches
           3; Conservative 0; Mismatches 0; Indels
                                                                0; Gaps
                                                                           0;
Qу
           2 RKS 4
             +
Db `
           2 RKS 4
```

```
RESULT 47
US-10-165-732A-10
; Sequence 10, Application US/10165732A
; Publication No. US20030124117A1
; GENERAL INFORMATION:
; APPLICANT: Refino, Canio J.
; APPLICANT: Bunting, Stuart
  APPLICANT: Kirchhofer, Daniel
  TITLE OF INVENTION: COMBINATIONS OF ANTI-TISSUE FACTOR ANTIBODIES AND
ANTICOAGULANT AND/OR
  TITLE OF INVENTION: ANTIPLATELET AGENTS
  FILE REFERENCE: 11669.110USI1
  CURRENT APPLICATION NUMBER: US/10/165,732A
  CURRENT FILING DATE: 2002-11-13
  PRIOR APPLICATION NUMBER: US 09/802,083
  PRIOR FILING DATE: 2001-03-08
; PRIOR APPLICATION NUMBER: US 60/189,775
  PRIOR FILING DATE: 2000-03-16
; NUMBER OF SEQ ID NOS: 28
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 10
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Mus musculus
US-10-165-732A-10
  Ouery Match
                         27.3%; Score 3; DB 14; Length 11;
  Best Local Similarity 100.0%; Pred. No. 6.4e+03;
 Matches 3; Conservative 0; Mismatches 0; Indels
                                                                            0;
                                                                0; Gaps
            4 SRD 6
Qу
             \perp
            3 SRD 5
RESULT 48
US-10-172-785-10
; Sequence 10, Application US/10172785
; Publication No. US20030143225A1
; GENERAL INFORMATION:
; APPLICANT: Refino, Canio J.
  APPLICANT: Bunting, Stuart
  APPLICANT: Kirchhofer, Daniel
  TITLE OF INVENTION: COMBINATIONS OF ANTI-TISSUE FACTOR ANTIBODIES AND
ANTICOAGULANT AND/OR
  TITLE OF INVENTION: ANTIPLATELET AGENTS
  FILE REFERENCE: 11669.110USI2
  CURRENT APPLICATION NUMBER: US/10/172,785
  CURRENT FILING DATE: 2002-12-10
  PRIOR APPLICATION NUMBER: US 10/165,732
  PRIOR FILING DATE: 2002-06-07
  PRIOR APPLICATION NUMBER: US 09/802,083
  PRIOR FILING DATE: 2001-03-08
  PRIOR APPLICATION NUMBER: US 60/189,775
  PRIOR FILING DATE: 2000-03-16
; NUMBER OF SEQ ID NOS: 28
  SOFTWARE: PatentIn version 3.1
```

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LENGTH: 11
   TYPE: PRT
   ORGANISM: Mus musculus
US-10-172-785-10
                         27.3%; Score 3; DB 14; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 6.4e+03;
                                                0; Indels
  Matches
           3; Conservative 0; Mismatches
                                                                0; Gaps
                                                                            0;
           4 SRD 6
Qу
             3 SRD 5
Db
RESULT 49
US-10-322-210-4
; Sequence 4, Application US/10322210
; Publication No. US20030147906A1
; GENERAL INFORMATION:
; APPLICANT: Friede, Martin
; APPLICANT: Mason, Sean
; APPLICANT: Turnell, William Gordon
  APPLICANT: Van Mechelen, Marcelle Paulette
  APPLICANT: Vinals y de Bassols, Carlota
  TITLE OF INVENTION: Epitopes or Mimotopes Derived from the
   TITLE OF INVENTION: C-Epsilon-3 or C-Epsilon-4 Domains of IgE, Antagonists
  TITLE OF INVENTION: Thereof, and Their Therapeutic Uses
  FILE REFERENCE: B45173
  CURRENT APPLICATION NUMBER: US/10/322,210
  CURRENT FILING DATE: 2002-12-18
  PRIOR APPLICATION NUMBER: US/09/914,089
  PRIOR FILING DATE: 2001-08-22
  PRIOR APPLICATION NUMBER: GB 9904408.3
  PRIOR FILING DATE: 1999-02-25
   PRIOR APPLICATION NUMBER: GB 9917144.9
  PRIOR FILING DATE: 1999-07-21
  PRIOR APPLICATION NUMBER: GB 9918598.5
   PRIOR FILING DATE: 1999-08-07
   PRIOR APPLICATION NUMBER: GB 9918599.3
  PRIOR FILING DATE: 1999-08-07
  PRIOR APPLICATION NUMBER: GB 9918601.7
  PRIOR FILING DATE: 1999-08-07
   PRIOR APPLICATION NUMBER: GB 9918604.1
   PRIOR FILING DATE: 1999-08-07
   PRIOR APPLICATION NUMBER: GB 9918606.6
   PRIOR FILING DATE: 1999-08-07
   PRIOR APPLICATION NUMBER: GB 9925618.2
  PRIOR FILING DATE: 1999-10-29
  NUMBER OF SEQ ID NOS: 86
   SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 4
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   FEATURE:
   OTHER INFORMATION: Chimeric
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; SEQ ID NO 10

```
27.3%; Score 3; DB 14; Length 11;
  Query Match
 Best Local Similarity 100.0%; Pred. No. 6.4e+03;
 Matches
           3; Conservative 0; Mismatches 0; Indels
                                                               0; Gaps
                                                                           0;
            4 SRD 6
Qу
             \perp
            6 SRD 8
Dh
RESULT 50
US-10-077-065-2
; Sequence 2, Application US/10077065
; Publication No. US20030165501A1
; GENERAL INFORMATION:
 APPLICANT: DeAlmeida, Venita I., Stewart, Timothy A.
  TITLE OF INVENTION: TREATMENT INVOLVING DKK-1 OR ANTAGONISTS THEREOF
  FILE REFERENCE: P1872R1
  CURRENT APPLICATION NUMBER: US/10/077,065
  CURRENT FILING DATE: 2002-02-15
; PRIOR APPLICATION NUMBER: US 60/269,435
  PRIOR FILING DATE: 2001-02-16
; NUMBER OF SEQ ID NOS: 3
; SEQ ID NO 2
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Homo sapiens
US-10-077-065-2
                         27.3%; Score 3; DB 14; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 6.4e+03;
            3; Conservative 0; Mismatches 0; Indels
                                                               0; Gaps
 Matches
            9 AIK 11
Qу
             Db
           7 AIK 9
RESULT 51
US-10-304-443-4
; Sequence 4, Application US/10304443
; Publication No. US20030170229A1
; GENERAL INFORMATION:
   APPLICANT: Smithkline Beecham Biologicals s.a.
  APPLICANT: Peptide Therapeutics Ltd.
  TITLE OF INVENTION: Vaccine
   FILE REFERENCE: B45173CIP
  CURRENT APPLICATION NUMBER: US/10/304,443
   CURRENT FILING DATE: 2002-11-26
  PRIOR APPLICATION NUMBER: US/09/698,906A
  PRIOR FILING DATE: 2001-02-20
  NUMBER OF SEQ ID NOS: 121
   SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 4
   LENGTH: 11
   TYPE: PRT
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US-10-304-443-4
 Query Match
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                         100.0%; Pred. No. 6.4e+03;
 Best Local Similarity
            3; Conservative 0; Mismatches
                                                  0; Indels
                                                                0; Gaps
                                                                            0;
           4 SRD 6
Qу
             Db
           6 SRD 8
RESULT 52
US-10-008-524A-171
; Sequence 171, Application US/10008524A
; Publication No. US20030175682A1
; GENERAL INFORMATION:
  APPLICANT: Doorbar, John
  TITLE OF INVENTION: IMPROVEMENTS IN OR RELATING TO SCREENING FOR PAPILLOMA
  TITLE OF INVENTION: VIRUSES
  FILE REFERENCE: 18396/1074
  CURRENT APPLICATION NUMBER: US/10/008,524A
  CURRENT FILING DATE: 2002-08-13
  PRIOR APPLICATION NUMBER: 09/314,268
  PRIOR FILING DATE: 1999-05-18
  NUMBER OF SEQ ID NOS: 179
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 171
   LENGTH: 11
   TYPE: PRT
; ORGANISM: Artificial Sequence
   FEATURE:
   OTHER INFORMATION: Description of Artificial Sequence: Synthetic
   OTHER INFORMATION: Peptide
US-10-008-524A-171
  Query Match
                         27.3%; Score 3; DB 14; Length 11;
  Best Local Similarity
                         100.0%; Pred. No. 6.4e+03;
 Matches
           3; Conservative
                               0; Mismatches
                                                  0; Indels
                                                                0; Gaps
                                                                            0;
            4 SRD 6
Qу
             | | |
Db
           2 SRD 4
RESULT 53
US-10-168-445-83
; Sequence 83, Application US/10168445
; Publication No. US20030177518A1
; GENERAL INFORMATION:
  APPLICANT: Osbourn, Anne E
  APPLICANT: Haralampidis, Kosmas
  APPLICANT: Bryan, Gregory T
  TITLE OF INVENTION: Plant Gene
  FILE REFERENCE: 0380-P02892US0
  CURRENT APPLICATION NUMBER: US/10/168,445
  CURRENT FILING DATE: 2002-10-30
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ORGANISM: Human peptide sequence

```
PRIOR APPLICATION NUMBER: PCT/GB00/04908
  PRIOR FILING DATE: 2000-12-20
  PRIOR APPLICATION NUMBER: GB 9930394.3
  PRIOR FILING DATE: 1999-12-22
  PRIOR APPLICATION NUMBER: GB 0020217.6
  PRIOR FILING DATE: 2000-08-16
  NUMBER OF SEQ ID NOS: 219
  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 83
   LENGTH: 11
    TYPE: PRT.
   ORGANISM: Avena strigosa
US-10-168-445-83
  Query Match
                        27.3%; Score 3; DB 14; Length 11;
  Best Local Similarity 100.0%; Pred. No. 6.4e+03;
           3; Conservative 0; Mismatches 0; Indels
                                                                            0;
                                                                0; Gaps
            2 RKS 4
Qу
             +111
            7 RKS 9
Db
RESULT 54
US-10-405-339-13
; Sequence 13, Application US/10405339
; Publication No. US20030190364A1
; GENERAL INFORMATION:
  APPLICANT: Panitch, Alyssa
  APPLICANT: Seal, Brandon
  TITLE OF INVENTION: Biological Affinity Based Delivery Systems
  FILE REFERENCE: 9138-0079US
  CURRENT APPLICATION NUMBER: US/10/405,339
  CURRENT FILING DATE: 2003-04-01
  PRIOR APPLICATION NUMBER: US 60/369,568
  PRIOR FILING DATE: 2002-04-01
  NUMBER OF SEQ ID NOS: 60
  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 13
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial sequence
    FEATURE:
    OTHER INFORMATION: Synthetic peptide
US-10-405-339-13
  Query Match
                         27.3%; Score 3; DB 14; Length 11;
  Best Local Similarity
                         100.0%; Pred. No. 6.4e+03;
           3; Conservative
                              0; Mismatches
                                                 0; Indels
                                                                0; Gaps
                                                                            0;
            1 ARK 3
Qу
              111
Db
            2 ARK 4
```

RESULT 55 US-10-376-121A-56

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; Sequence 56, Application US/10376121A
; Publication No. US20030216544A1
   GENERAL INFORMATION:
        APPLICANT: Harley, John
        TITLE OF INVENTION: METHODS AND REAGENTS FOR DIAGNOSIS OF
                            AUTOANTIBODIES
        NUMBER OF SEQUENCES: 218
        CORRESPONDENCE ADDRESS:
             ADDRESSEE: Patrea L. Pabst
              STREET: Suite 2000, 1201 West Peachtree Street, N.E.
             CITY: Atlanta
              STATE: GA
             COUNTRY: USA
              ZIP: 30309-3400
         COMPUTER READABLE FORM:
             MEDIUM TYPE: Floppy disk
             COMPUTER: IBM PC compatible
             OPERATING SYSTEM: PC-DOS/MS-DOS
              SOFTWARE: PatentIn Release #1.0, Version #1.25
        CURRENT APPLICATION DATA:
             APPLICATION NUMBER: US/10/376,121A
              FILING DATE: 27-Mar-2003
             CLASSIFICATION: <Unknown>
         PRIOR APPLICATION DATA:
             APPLICATION NUMBER: 07/867,819
             FILING DATE: April 13, 1992
             APPLICATION NUMBER: 07/648,205
             FILING DATE: January 31, 1991
             APPLICATION NUMBER: 07/472,947
              FILING DATE: January 31, 1990
        ATTORNEY/AGENT INFORMATION:
             NAME: Pabst, Patrea L.
              REGISTRATION NUMBER: 31,284
             REFERENCE/DOCKET NUMBER: OMRF114CIP(2)DIV(2)
         TELECOMMUNICATION INFORMATION:
             TELEPHONE: (404)-817-8473
             TELEFAX: (404)-817-8588
   INFORMATION FOR SEQ ID NO: 56:
        SEQUENCE CHARACTERISTICS:
             LENGTH: 11 amino acids
             TYPE: amino acid
             STRANDEDNESS: single
             TOPOLOGY: linear
        MOLECULE TYPE: peptide
        FEATURE:
             NAME/KEY: Binding-site
             LOCATION: 1..8
        SEQUENCE DESCRIPTION: SEQ ID NO: 56:
US-10-376-121A-56
                         27.3%; Score 3; DB 15; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 6.4e+03;
 Matches 3; Conservative 0; Mismatches 0; Indels
                                                                0; Gaps
                                                                            0;
           7 MTA 9
            111
Db
           9 MTA 11
```

```
RESULT 56
US-10-350-719-171
; Sequence 171, Application US/10350719
; Publication No. US20030219726A1
; GENERAL INFORMATION:
  APPLICANT: Doorbar, John
  TITLE OF INVENTION: IMPROVEMENTS IN OR RELATING TO SCREENING FOR PAPILLOMA
  TITLE OF INVENTION: VIRUSES
   FILE REFERENCE: 18396/2162
   CURRENT APPLICATION NUMBER: US/10/350,719
   CURRENT FILING DATE: 2003-01-24
   PRIOR APPLICATION NUMBER: PCT/GB01/01176
   PRIOR FILING DATE: 2001-03-16
   PRIOR APPLICATION NUMBER: GB0018140.4
   PRIOR FILING DATE: 2000-07-24
  NUMBER OF SEQ ID NOS: 180
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 171
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
    FEATURE:
   OTHER INFORMATION: Description of Artificial Sequence: Synthetic
   OTHER INFORMATION: Peptide
US-10-350-719-171
                          27.3%; Score 3; DB 15; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 6.4e+03;
            3; Conservative 0; Mismatches
                                                 0; Indels
                                                                 0; Gaps
                                                                             0;
 Matches
            4 SRD 6
Qy
              111
Db
            2 SRD 4
RESULT 57
US-10-378-173-136
; Sequence 136, Application US/10378173
; Publication No. US20030232014A1
; GENERAL INFORMATION:
   APPLICANT: Burke et al.
   TITLE OF INVENTION: PHOSPHORYLATED PROTEINS AND USES RELATED THERETO
   FILE REFERENCE: MDSP-P01-023
   CURRENT APPLICATION NUMBER: US/10/378,173
   CURRENT FILING DATE: 2003-03-03
   PRIOR APPLICATION NUMBER: 60/360787
   PRIOR FILING DATE: 2002-03-01
   NUMBER OF SEQ ID NOS: 231
   SOFTWARE: PatentIn version 3.2
; SEQ ID NO 136
    LENGTH: 11
    TYPE: PRT
    ORGANISM: Artificial Sequence
    FEATURE:
    OTHER INFORMATION: phosphorylated peptide
```

```
FEATURE:
   NAME/KEY: MISC FEATURE
;
   LOCATION: (3)..(3)
   OTHER INFORMATION: phosphorylation
   FEATURE:
   NAME/KEY: MISC FEATURE
   LOCATION: (4)..(4)
   OTHER INFORMATION: phosphorylation
US-10-378-173-136
  Query Match
                         27.3%; Score 3; DB 15; Length 11;
  Best Local Similarity 100.0%; Pred. No. 6.4e+03;
          3; Conservative
                             0; Mismatches
                                                                         0;
 Matches
                                               0; Indels
                                                               0; Gaps
           2 RKS 4
Qу
             111
           1 RKS 3
Db
RESULT 58
US-10-032-037B-5
; Sequence 5, Application US/10032037B
; Publication No. US20040001822A1
; GENERAL INFORMATION:
  APPLICANT: Bio-Technology General Corp.
  TITLE OF INVENTION: Y17-ISOLATED MOLECULES COMPRISING EPITOPES CONTAINING
  TITLE OF INVENTION: MOIETIES, ANTIBODIES TO SUCH EPITOPES, AND USES THEREOF
  FILE REFERENCE: 10793/44
  CURRENT APPLICATION NUMBER: US/10/032,037B
; CURRENT FILING DATE: 2001-12-31
; PRIOR APPLICATION NUMBER: 60/258,948
; PRIOR FILING DATE: 2000-12-29
; NUMBER OF SEQ ID NOS: 204
  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 5
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Homo sapiens
US-10-032-037B-5
  Query Match
                         27.3%; Score 3; DB 15; Length 11;
  Best Local Similarity 100.0%; Pred. No. 6.4e+03;
           3; Conservative 0; Mismatches 0; Indels
                                                                           0;
           4 SRD 6
Qу
             | | |
Db
           2 SRD 4
RESULT 59
US-10-032-037B-118
; Sequence 118, Application US/10032037B
; Publication No. US20040001822A1
; GENERAL INFORMATION:
; APPLICANT: Bio-Technology General Corp.
```

```
; TITLE OF INVENTION: Y17-ISOLATED MOLECULES COMPRISING EPITOPES CONTAINING
SULFATED
  TITLE OF INVENTION: MOIETIES, ANTIBODIES TO SUCH EPITOPES, AND USES THEREOF
  FILE REFERENCE: 10793/44
  CURRENT APPLICATION NUMBER: US/10/032,037B
  CURRENT FILING DATE: 2001-12-31
  PRIOR APPLICATION NUMBER: 60/258,948
  PRIOR FILING DATE: 2000-12-29
  NUMBER OF SEQ ID NOS: 204
  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 118
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Homo sapiens
US-10-032-037B-118
                         27.3%; Score 3; DB 15; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 6.4e+03;
           3; Conservative 0; Mismatches 0; Indels
                                                               0; Gaps
                                                                          0;
           4 SRD 6
QУ
             5 SRD 7
RESULT 60
US-10-032-037B-131
; Sequence 131, Application US/10032037B
; Publication No. US20040001822A1
; GENERAL INFORMATION:
; APPLICANT: Bio-Technology General Corp.
  TITLE OF INVENTION: Y17-ISOLATED MOLECULES COMPRISING EPITOPES CONTAINING
SULFATED
  TITLE OF INVENTION: MOIETIES, ANTIBODIES TO SUCH EPITOPES, AND USES THEREOF
  FILE REFERENCE: 10793/44
  CURRENT APPLICATION NUMBER: US/10/032,037B
; CURRENT FILING DATE: 2001-12-31
; PRIOR APPLICATION NUMBER: 60/258,948
; PRIOR FILING DATE: 2000-12-29
; NUMBER OF SEQ ID NOS: 204
  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 131
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Homo sapiens
US-10-032-037B-131
  Query Match
                         27.3%; Score 3; DB 15; Length 11;
  Best Local Similarity 100.0%; Pred. No. 6.4e+03;
           3; Conservative 0; Mismatches 0; Indels 0; Gaps
 Matches
                                                                          0;
           4 SRD 6
Qу
             2 SRD 4
Db
```

```
US-10-032-037B-133
; Sequence 133, Application US/10032037B
; Publication No. US20040001822A1
; GENERAL INFORMATION:
; APPLICANT: Bio-Technology General Corp.
  TITLE OF INVENTION: Y17-ISOLATED MOLECULES COMPRISING EPITOPES CONTAINING
SULFATED
  TITLE OF INVENTION: MOIETIES, ANTIBODIES TO SUCH EPITOPES, AND USES THEREOF
  FILE REFERENCE: 10793/44
  CURRENT APPLICATION NUMBER: US/10/032,037B
  CURRENT FILING DATE: 2001-12-31
  PRIOR APPLICATION NUMBER: 60/258,948
  PRIOR FILING DATE: 2000-12-29
; NUMBER OF SEQ ID NOS: 204
  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 133
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Homo sapiens
US-10-032-037B-133
  Query Match
                         27.3%; Score 3; DB 15; Length 11;
  Best Local Similarity 100.0%; Pred. No. 6.4e+03;
                                                0; Indels 0; Gaps 0;
                               0; Mismatches
 Matches
           3; Conservative
           4 SRD 6
Qу
             111
           2 SRD 4
Db
RESULT 62
US-10-032-037B-139
; Sequence 139, Application US/10032037B
; Publication No. US20040001822A1
; GENERAL INFORMATION:
; APPLICANT: Bio-Technology General Corp.
; TITLE OF INVENTION: Y17-ISOLATED MOLECULES COMPRISING EPITOPES CONTAINING
SULFATED
  TITLE OF INVENTION: MOIETIES, ANTIBODIES TO SUCH EPITOPES, AND USES THEREOF
  FILE REFERENCE: 10793/44
  CURRENT APPLICATION NUMBER: US/10/032,037B
  CURRENT FILING DATE: 2001-12-31
  PRIOR APPLICATION NUMBER: 60/258,948
  PRIOR FILING DATE: 2000-12-29
; NUMBER OF SEQ ID NOS: 204
  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 139
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Homo sapiens
US-10-032-037B-139
                         27.3%; Score 3; DB 15; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 6.4e+03;
          3; Conservative 0; Mismatches 0; Indels
                                                                0; Gaps
                                                                            0;
           4 SRD 6
Qу
```

```
RESULT 63
US-10-032-037B-161
; Sequence 161, Application US/10032037B
; Publication No. US20040001822A1
; GENERAL INFORMATION:
  APPLICANT: Bio-Technology General Corp.
  TITLE OF INVENTION: Y17-ISOLATED MOLECULES COMPRISING EPITOPES CONTAINING
SULFATED
  TITLE OF INVENTION: MOIETIES, ANTIBODIES TO SUCH EPITOPES, AND USES THEREOF
  FILE REFERENCE: 10793/44
  CURRENT APPLICATION NUMBER: US/10/032,037B
  CURRENT FILING DATE: 2001-12-31
  PRIOR APPLICATION NUMBER: 60/258,948
  PRIOR FILING DATE: 2000-12-29
; NUMBER OF SEQ ID NOS: 204
  SOFTWARE: FastSEQ for Windows Version 3.0
; SEO ID NO 161
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Homo sapiens
US-10-032-037B-161
 Query Match
                         27.3%; Score 3; DB 15; Length 11;
 Best Local Similarity 100.0%; Pred. No. 6.4e+03;
           3; Conservative 0; Mismatches 0;
                                                       Indels
                                                                 0; Gaps
                                                                             0;
 Matches
            4 SRD 6
Qу
             111
            2 SRD 4
Dh
RESULT 64
US-10-032-037B-202
; Sequence 202, Application US/10032037B
; Publication No. US20040001822A1
; GENERAL INFORMATION:
  APPLICANT: Bio-Technology General Corp.
  TITLE OF INVENTION: Y17-ISOLATED MOLECULES COMPRISING EPITOPES CONTAINING
SULFATED
  TITLE OF INVENTION: MOIETIES, ANTIBODIES TO SUCH EPITOPES, AND USES THEREOF
  FILE REFERENCE: 10793/44
  CURRENT APPLICATION NUMBER: US/10/032,037B
  CURRENT FILING DATE: 2001-12-31
; PRIOR APPLICATION NUMBER: 60/258,948
  PRIOR FILING DATE: 2000-12-29
  NUMBER OF SEQ ID NOS: 204
  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 202
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Homo sapiens
US-10-032-037B-202
```

```
Best Local Similarity 100.0%; Pred. No. 6.4e+03;
           3; Conservative 0; Mismatches 0; Indels
 Matches
                                                               0; Gaps
                                                                           0:
Qу
           4 SRD 6
             Db
           2 SRD 4
RESULT 65
US-10-029-988B-5
; Sequence 5, Application US/10029988B
; Publication No. US20040001839A1
; GENERAL INFORMATION:
  APPLICANT: Bio-Technology General Corp.
  TITLE OF INVENTION: Y17-ISOLATED MOLECULES COMPRISING EPITOPES CONTAINING
SULFATED
  TITLE OF INVENTION: MOIETIES, ANTIBODIES TO SUCH EPITOPES, AND USES THEREOF
  FILE REFERENCE: 10793/46
  CURRENT APPLICATION NUMBER: US/10/029,988B
  CURRENT FILING DATE: 2001-12-31
  PRIOR APPLICATION NUMBER: 60/258,948
  PRIOR FILING DATE: 2000-12-29
  NUMBER OF SEQ ID NOS: 204
  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 5
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Homo sapiens
US-10-029-988B-5
 Query Match
                         27.3%; Score 3; DB 15; Length 11;
  Best Local Similarity 100.0%; Pred. No. 6.4e+03;
                                                               0; Gaps
           3; Conservative 0; Mismatches 0; Indels
                                                                           0;
           4 SRD 6
Qу
             Db
           2 SRD 4
RESULT 66
US-10-029-988B-118
; Sequence 118, Application US/10029988B
; Publication No. US20040001839A1
; GENERAL INFORMATION:
; APPLICANT: Bio-Technology General Corp.
  TITLE OF INVENTION: Y17-ISOLATED MOLECULES COMPRISING EPITOPES CONTAINING
SULFATED
  TITLE OF INVENTION: MOIETIES, ANTIBODIES TO SUCH EPITOPES, AND USES THEREOF
   FILE REFERENCE: 10793/46
   CURRENT APPLICATION NUMBER: US/10/029,988B
; CURRENT FILING DATE: 2001-12-31
; PRIOR APPLICATION NUMBER: 60/258,948
  PRIOR FILING DATE: 2000-12-29
; NUMBER OF SEQ ID NOS: 204
  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 118
```

27.3%; Score 3; DB 15; Length 11;

Ouery Match

```
TYPE: PRT
; ORGANISM: Homo sapiens
US-10-029-988B-118
  Ouery Match
                         27.3%; Score 3; DB 15; Length 11;
  Best Local Similarity 100.0%; Pred. No. 6.4e+03;
           3; Conservative 0; Mismatches 0; Indels
                                                               0; Gaps
                                                                           0;
           4 SRD 6
Qу
             +
           5 SRD 7
Db
RESULT 67
US-10-029-988B-131
; Sequence 131, Application US/10029988B
; Publication No. US20040001839A1
; GENERAL INFORMATION:
; APPLICANT: Bio-Technology General Corp.
 TITLE OF INVENTION: Y17-ISOLATED MOLECULES COMPRISING EPITOPES CONTAINING
SULFATED
; TITLE OF INVENTION: MOIETIES, ANTIBODIES TO SUCH EPITOPES, AND USES THEREOF
  FILE REFERENCE: 10793/46
  CURRENT APPLICATION NUMBER: US/10/029,988B
  CURRENT FILING DATE: 2001-12-31
  PRIOR APPLICATION NUMBER: 60/258,948
  PRIOR FILING DATE: 2000-12-29
; NUMBER OF SEQ ID NOS: 204
; SOFTWARE: FastSEQ for Windows Version 3.0
; SEO ID NO 131
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Homo sapiens
US-10-029-988B-131
 Query Match
                         27.3%; Score 3; DB 15; Length 11;
 Best Local Similarity 100.0%; Pred. No. 6.4e+03;
           3; Conservative
                              0; Mismatches
                                                               0; Gaps
                                                0; Indels
         4 SRD 6
Qу
             IIII
           2 SRD 4
Db
RESULT 68
US-10-029-988B-133
; Sequence 133, Application US/10029988B
; Publication No. US20040001839A1
; GENERAL INFORMATION:
; APPLICANT: Bio-Technology General Corp.
  TITLE OF INVENTION: Y17-ISOLATED MOLECULES COMPRISING EPITOPES CONTAINING
; TITLE OF INVENTION: MOIETIES, ANTIBODIES TO SUCH EPITOPES, AND USES THEREOF
; FILE REFERENCE: 10793/46
; CURRENT APPLICATION NUMBER: US/10/029,988B
; CURRENT FILING DATE: 2001-12-31
```

LENGTH: 11

```
PRIOR APPLICATION NUMBER: 60/258,948
  PRIOR FILING DATE: 2000-12-29
; NUMBER OF SEQ ID NOS: 204
; SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 133
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Homo sapiens
US-10-029-988B-133
  Query Match
                        27.3%; Score 3; DB 15; Length 11;
  Best Local Similarity 100.0%; Pred. No. 6.4e+03;
           3; Conservative 0; Mismatches
                                               0; Indels
                                                              0; Gaps
                                                                           0;
           4 SRD 6
QУ
             111
Db
           2 SRD 4
RESULT 69
US-10-029-988B-139
; Sequence 139, Application US/10029988B
; Publication No. US20040001839A1
; GENERAL INFORMATION:
  APPLICANT: Bio-Technology General Corp.
  TITLE OF INVENTION: Y17-ISOLATED MOLECULES COMPRISING EPITOPES CONTAINING
SULFATED
; TITLE OF INVENTION: MOIETIES, ANTIBODIES TO SUCH EPITOPES, AND USES THEREOF
; FILE REFERENCE: 10793/46
; CURRENT APPLICATION NUMBER: US/10/029,988B
; CURRENT FILING DATE: 2001-12-31
   PRIOR APPLICATION NUMBER: 60/258,948
  PRIOR FILING DATE: 2000-12-29
; NUMBER OF SEQ ID NOS: 204
  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 139
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Homo sapiens
US-10-029-988B-139
                         27.3%; Score 3; DB 15; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 6.4e+03;
           3; Conservative 0; Mismatches 0; Indels 0; Gaps
                                                                           0;
  Matches
            4 SRD 6
Qу
             1 H
           2 SRD 4
Db
RESULT 70
US-10-029-988B-161
; Sequence 161, Application US/10029988B
; Publication No. US20040001839A1
; GENERAL INFORMATION:
; APPLICANT: Bio-Technology General Corp.
```

```
TITLE OF INVENTION: Y17-ISOLATED MOLECULES COMPRISING EPITOPES CONTAINING
SULFATED
  TITLE OF INVENTION: MOIETIES, ANTIBODIES TO SUCH EPITOPES, AND USES THEREOF
;
  FILE REFERENCE: 10793/46
  CURRENT APPLICATION NUMBER: US/10/029,988B
  CURRENT FILING DATE: 2001-12-31
  PRIOR APPLICATION NUMBER: 60/258,948
  PRIOR FILING DATE: 2000-12-29
  NUMBER OF SEQ ID NOS: 204
  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 161
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Homo sapiens
US-10-029-988B-161
                         27.3%; Score 3; DB 15; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 6.4e+03;
 Matches 3; Conservative 0; Mismatches 0; Indels
                                                               0; Gaps
                                                                           0;
           4 SRD 6
Qy
             -111
           2 SRD 4
Db
RESULT 71
US-10-029-988B-202
; Sequence 202, Application US/10029988B
; Publication No. US20040001839A1
; GENERAL INFORMATION:
  APPLICANT: Bio-Technology General Corp.
  TITLE OF INVENTION: Y17-ISOLATED MOLECULES COMPRISING EPITOPES CONTAINING
SULFATED
; TITLE OF INVENTION: MOIETIES, ANTIBODIES TO SUCH EPITOPES, AND USES THEREOF
  FILE REFERENCE: 10793/46
  CURRENT APPLICATION NUMBER: US/10/029,988B
; CURRENT FILING DATE: 2001-12-31
; PRIOR APPLICATION NUMBER: 60/258,948
; PRIOR FILING DATE: 2000-12-29
; NUMBER OF SEQ ID NOS: 204
  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 202
   LENGTH: 11
    TYPE: PRT
    ORGANISM: Homo sapiens
US-10-029-988B-202
                         27.3%; Score 3; DB 15; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 6.4e+03;
           3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
  Matches
           4 SRD 6
Qу
             111
Db
           2 SRD 4
```

RESULT 72

```
US-10-032-423A-5
; Sequence 5, Application US/10032423A
; Publication No. US20040002450A1
; GENERAL INFORMATION:
; APPLICANT: Bio-Technology General Corp.
  TITLE OF INVENTION: Y17-ISOLATED MOLECULES COMPRISING EPITOPES CONTAINING
SULFATED
  TITLE OF INVENTION: MOIETIES, ANTIBODIES TO SUCH EPITOPES, AND USES THEREOF
  FILE REFERENCE: 10793/45
  CURRENT APPLICATION NUMBER: US/10/032,423A
  CURRENT FILING DATE: 2001-12-31
  PRIOR APPLICATION NUMBER: 60/258,948
  PRIOR FILING DATE: 12/29/2000
; NUMBER OF SEQ ID NOS: 204
  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 5
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Homo sapiens
US-10-032-423A-5
  Query Match
                         27.3%; Score 3; DB 15; Length 11;
  Best Local Similarity 100.0%; Pred. No. 6.4e+03;
          3; Conservative 0; Mismatches 0; Indels 0; Gaps
 Matches
                                                                         0;
          4 SRD 6
Qу
             111
           2 SRD 4
RESULT 73
US-10-032-423A-118
; Sequence 118, Application US/10032423A
; Publication No. US20040002450A1
; GENERAL INFORMATION:
; APPLICANT: Bio-Technology General Corp.
 TITLE OF INVENTION: Y17-ISOLATED MOLECULES COMPRISING EPITOPES CONTAINING
SULFATED
; TITLE OF INVENTION: MOIETIES, ANTIBODIES TO SUCH EPITOPES, AND USES THEREOF
  FILE REFERENCE: 10793/45
  CURRENT APPLICATION NUMBER: US/10/032,423A
  CURRENT FILING DATE: 2001-12-31
  PRIOR APPLICATION NUMBER: 60/258,948
  PRIOR FILING DATE: 12/29/2000
; NUMBER OF SEQ ID NOS: 204
  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 118
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Homo sapiens
US-10-032-423A-118
                         27.3%; Score 3; DB 15; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 6.4e+03;
 Matches 3; Conservative 0; Mismatches 0; Indels
Qу
          4 SRD 6
```

```
RESULT 74
US-10-032-423A-131
; Sequence 131, Application US/10032423A
; Publication No. US20040002450A1
; GENERAL INFORMATION:
  APPLICANT: Bio-Technology General Corp.
  TITLE OF INVENTION: Y17-ISOLATED MOLECULES COMPRISING EPITOPES CONTAINING
SULFATED
; TITLE OF INVENTION: MOIETIES, ANTIBODIES TO SUCH EPITOPES, AND USES THEREOF
  FILE REFERENCE: 10793/45
  CURRENT APPLICATION NUMBER: US/10/032,423A
  CURRENT FILING DATE: 2001-12-31
  PRIOR APPLICATION NUMBER: 60/258,948
  PRIOR FILING DATE: 12/29/2000
; NUMBER OF SEQ ID NOS: 204
  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 131
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Homo sapiens
US-10-032-423A-131
  Query Match
                         27.3%; Score 3; DB 15; Length 11;
 Best Local Similarity 100.0%; Pred. No. 6.4e+03;
 Matches 3; Conservative 0; Mismatches 0; Indels
                                                                0; Gaps
                                                                            0;
            4 SRD 6
Qy
             -111
Db
           2 SRD 4
RESULT 75
US-10-032-423A-133
; Sequence 133, Application US/10032423A
; Publication No. US20040002450A1
; GENERAL INFORMATION:
  APPLICANT: Bio-Technology General Corp.
  TITLE OF INVENTION: Y17-ISOLATED MOLECULES COMPRISING EPITOPES CONTAINING
SULFATED
   TITLE OF INVENTION: MOIETIES, ANTIBODIES TO SUCH EPITOPES, AND USES THEREOF
   FILE REFERENCE: 10793/45
   CURRENT APPLICATION NUMBER: US/10/032,423A
   CURRENT FILING DATE: 2001-12-31
   PRIOR APPLICATION NUMBER: 60/258,948
   PRIOR FILING DATE: 12/29/2000
  NUMBER OF SEQ ID NOS: 204
  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 133
  LENGTH: 11
    TYPE: PRT
   ORGANISM: Homo sapiens
US-10-032-423A-133
```

Query Match 27.3%; Score 3; DB 15; Length 11;
Best Local Similarity 100.0%; Pred. No. 6.4e+03;
Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 4 SRD 6 III Db 2 SRD 4

Search completed: April 8, 2004, 16:35:50 Job time: 30.3077 secs

GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd.

OM protein - protein search, using sw model

Run on:

April 8, 2004, 15:30:07; Search time 27.7692 Seconds

(without alignments)

124.984 Million cell updates/sec

Title:

US-09-787-443A-22

Perfect score: 11

Sequence:

1 ARKSRDMTAIK 11

Scoring table: OLIGO

Gapop 60.0 , Gapext 60.0

Searched:

1017041 seqs, 315518202 residues

Word size :

Total number of hits satisfying chosen parameters:

460

Minimum DB seg length: 11 Maximum DB seg length: 11

Post-processing: Listing first 100 summaries

Database :

SPTREMBL 25:*

- 1: sp archea:*
- 2: sp_bacteria:*
- 3: sp_fungi:*
- 4: sp human:*
- 5: sp invertebrate:*
- sp_mammal:* 6:
- 7: sp mhc:*
- 8: sp organelle:*
- 9: sp phage:*
- 10: sp plant:*
- 11: sp rodent:*
- 12: sp virus:*
- 13: sp_vertebrate:*
- 14: sp_unclassified:*
- 15: sp rvirus:*
- 16: sp bacteriap:*
- 17: sp_archeap:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result

Query

Score Match Length DB ID No.

Description

	1	3	27.3	1	1	2	Q47602	Q47602	escherichia
	2		18.2	1		2	Q9R790	Q9r790	borrelia ga
	3		18.2		1	2	Q47451	Q47451	escherichia
	4		18.2		1	2	Q9AIZ7		carsonella
	5		18.2		1	2	Q8RKN1	Q8rkn1	escherichia
	6		18.2		1	2	Q8L2T4	Q812t4	neisseria m
	7		18.2		1	2	P77404		escherichia
	8		18.2		1	2	Q8RMI8	O8rmi8	enterococcu
	9		18.2		1.	2	Q44090		acholeplasm
	10		18.2		1	2	Q44237		anabaena sp
•	11		18.2		1	2	Q9R872		escherichia
	12		18.2		$\overline{1}$	2	Q8GL24		borrelia bu
	13		18.2		1	2	Q8GL19	Q8q119	borrelia bu
	14		18.2		1	2	Q7WUL8		pseudomonas
	15		18.2		1	3	Q9URG1		neurospora
	16		18.2		1	3	Q96V15		cryptococcu
	17		18.2		1	4	Q14759		homo sapien
	18		18.2		1	4	Q9NY38		homo sapien
	19		18.2		1	4	Q9Y3G2		homo sapien
	20		18.2		1	4	Q9UNL8		homo sapien
	21		18.2		1	4	Q9UCP5		homo sapien
	22		18.2		1	4	Q16234		homo sapien
	23		18.2		1	4	Q9UBM2		homo sapien
	24		18.2		1	4	Q8NI03		homo sapien
	25	2	18.2		1	4	Q9UCR1	Q9ucr1	homo sapien
	26		18.2		1	4	Q9HCN5	Q9hcn5	homo sapien
	27	2	18.2		1	5	Q25916	Q25916	plasmodium
	28	2	18.2		.1	5	Q9NFX0	Q9nfx0	drosophila
	29	2	18.2		.1	5	Q8MPQ3	Q8mpq3	caenorhabdi
	30	2	18.2		.1	6	Q9TRR7	Q9trr7	oryctolagus
	31	2	18.2		.1	6	Q9XSP7	Q9xsp7	pygathrix n
	32	2	18.2		.1	6	Q9XSP2	Q9xsp2	hylobates s
	33	2	18.2		.1	6	Q9XSP5	Q9xsp5	pan troglod
	34	2	18.2		.1	6	Q9TQS9	Q9tqs9	equus cabal
	35	2	18.2		.1	6	Q9TQS0	Q9tqs0	bos taurus
	36	2	18.2		.1	6	Q9XSP8	Q9xsp8	presbytis j
	37	2	18.2		1	6	Q9XSP6	Q9xsp6	pongo pygma
	38	2	18.2	1	.1	6	Q9XSQ4	Q9xsq4	gorilla gor
	39	2	18.2	1	1	7	077900		oreochromis
	40	2	18.2		1	7	077917		oreochromis
	41	2	18.2	. 1	1	7	077902		oreochromis
	42	2	18.2	1	1	7	077921		pseudotroph
	43	2	18.2	1	1	7	077901		oreochromis
	44	2	18.2	1	11	7	077916		oreochromis
	45	2	18.2	1	L 1.	7	077905		oreochromis
	46	2	18.2	1	L1	7	077899		oreochromis
	47	2	18.2	. 1	11	7	078121		oreochromis
	48	2	18.2	-	L1	7	077904	•	oreochromis
	49	2	18.2	-	L1	7	077903		oreochromis
	50	2	18.2		L1	8	Q94V94		varanus sto
	51	2	18.2		11	8	Q8ME62		porphyra ca
	52	2	18.2		11	8	Q9G5W2		laudakia tu
	53	2	18.2	3	11	8	Q9G622		salea horsf
	54	2	18.2	-	11	8	Q94VG8		varanus gou
	55	2	18.2		11	8	Q9G5Y6		agama agama
	56	2	18.2		11	8	Q8MEL7		sida hooker
	57	2	18.2		11	8	Q9G5Y0	Q9g5y0	pseudotrape

58	2	18.2	11	8	Q9G5W5	Q9g5w5 laudakia nu
59	2	18.2	11	8	Q9G607	Q9q607 aphaniotis
60	2	18.2	11	8	Q94V77	Q94v77 heloderma s
61	2	18.2	11	8	079985	079985 laudakia ca
62	2	18.2	11	8	Q9G359	Q9g359 japalura fl
63	2	18.2	11	8	O8MEM2	Q8mem2 lagunaria p
64	2	18.2	11	8	Q9G649	Q9q649 otocryptis
65	2	18.2	11.	8	Q9G643	Q9g643 calotes cal
66	2	18.2	11	8	Q9G5X4	Q9q5x4 trapelus ag
67	2	18.2	11	8	Q94V74	Q94v74 lanthanotus
68 .	2	18.2	11	8	Q8MES5	Q8mes5 abelmoschus
69	2	18.2	11	8	Q9GD68	Q9gd68 elaeis guin
70	2	18.2	11	8	Q9G350	Q9g350 laudakia sa
71	2	18.2	11	8	Q8WD17	Q8wd17 ctenophorus
72	2	18.2	11	8	Q9G5Z8	Q9g5z8 acanthosaur
73	2	18.2	11	8	Q9G368	Q9g368 draco blanf
74	2	18.2	11	8	Q9G5W8	Q9g5w8 trapelus sa
75	2	18.2	11	8	Q8MEP0	Q8mep0 hibiscus pe
76	2	18.2	11	8	Q94VE7	Q94ve7 varanus kom
77	2	18.2	11	8	Q94VB8	Q94vb8 varanus sal
78	- 2	18.2	11	8	Q9G353	Q9g353 trapelus sa
79	2	18.2	11	8	Q32704	Q32704 nicotiana t
80	2	18.2	11	8	079642	079642 laudakia mi
81	2	18.2	11	8	Q8MES1	Q8mes1 alyogyne pi
82	2	18.2	11	8	Q94VH7	Q94vh7 varanus gil
83	2	18.2	11	8	Q8SKR0	Q8skr0 rankinia di
84	2	18.2	11	8	Q8MEP3	Q8mep3 hibiscus no
85	2	18.2	11	8	Q9G619	Q9g619 ceratophora
86	2	18.2	11	8	Q8WER7	Q8wer7 ceratophora
87	2	18.2	11	8	Q8WD50	Q8wd50 ceratophora
88	2	18.2	11	8	Q94VK1	Q94vk1 varanus aca
89	2	18.2	11	8	Q9G356	Q9g356 agama atra
90	2	18.2	11	8	079639	079639 laudakia le
91	2	18.2	11	8	Q8MEQ7	Q8meq7 hibiscus dr
92	2	18.2	11	8	Q9G5V0	Q9g5v0 laudakia st
93	2	18.2	11	8	Q8MEL9	Q8mel9 pavonia has
94	2	18.2	11	8	Q9G5X1	Q9g5x1 trapelus pe
95	2	18.2	11	8	Q8MER0	Q8mer0 hibiscus co
96	2	18.2	11	8	Q8MES3	Q8mes3 alyogyne cr
97	2	18.2	11	8	Q9G658	Q9g658 hydrosaurus
98	2	18.2	11	8	Q8ME54	Q8me54 porphyra um
99	2	18.2	11	8	Q8WER4	Q8wer4 ceratophora
100	2	18.2	11	8	Q8MEP5	Q8mep5 hibiscus mi

ALIGNMENTS

```
RESULT 1
Q47602
                                          PRT;
                                                   11 AA.
     Q47602
                    PRELIMINARY;
ID
     01-NOV-1996 (TrEMBLrel. 01, Created)
01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
     REase protein (Fragment).
DE
GN
      REASE.
```

```
OS
     Escherichia coli.
     Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
OC
     Enterobacteriaceae; Escherichia.
OC
OX
     NCBI TaxID=562;
RN
     [1]
RP
     SEQUENCE FROM N.A.
     MEDLINE=91139577; PubMed=1995588;
RX
     Tao T., Bourne J.C., Blumenthal R.M.;
RA
     "A family of regulatory genes associated with type II restriction-
RT
     modification systems.";
RT
     J. Bacteriol. 173:1367-1375(1991).
RL
     EMBL; M63620; AAA24558.1; -.
DR
                  11
FT
     NON TER
                         11
                11 AA; 1412 MW; 80ABB190C736DAAA CRC64;
     SEQUENCE
SQ
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 9.7e+03;
  Best Local Similarity
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
                                 0; Mismatches
             3; Conservative
  Matches
            4 SRD 6
Qу
              \mathbf{I}
            2 SRD 4
Db
RESULT 2
Q9R790
                 PRELIMINARY;
                                    PRT;
                                            11 AA.
ID
     Q9R790
AC
     09R790;
     01-MAY-2000 (TrEMBLrel. 13, Created)
DТ
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Outer surface protein C (Fragment).
DE
GN
     OSPC.
os
     Borrelia garinii.
     Bacteria; Spirochaetes; Spirochaetales; Spirochaetaceae; Borrelia.
OC
OX
     NCBI TaxID=29519;
RN
     SEQUENCE FROM N.A.
RP
RC
     STRAIN=G25;
     MEDLINE=97426044; PubMed=9282748;
RX
     Tilly K., Casjens S., Stevenson B., Bono J.L., Samuels D.S., Hogan D.,
RA
RA
     Rosa P.;
     "he Borrelia burgdorferi circular plasmid cp26: conservation of
RT
     plasmid structure and targeted inactivation of the ospC gene.";
RT
     Mol. Microbiol. 25:361-374(1997).
RL
     EMBL; U93700; AAC45535.1; -.
DR
     GO; GO:0009279; C:external outer membrane (sensu Gram-negativ. . .; IEA.
DR
     GO; GO:0003793; F:defense/immunity protein activity; IEA.
DR
     GO; GO:0006952; P:defense response; IEA.
DR
     InterPro; IPR001800; Lipoprotein 6.
DR
     Pfam; PF01441; Lipoprotein_6; 1.
DR
     NON TER
                          11
FT
                   11
                 11 AA; 1250 MW; 0868D864C5B731A4 CRC64;
     SEQUENCE
SQ
                           18.2%; Score 2; DB 2; Length 11;
  Query Match
                           100.0%; Pred. No. 1.2e+05;
  Best Local Similarity
                                                                               0;
                                                     0; Indels
                                                                   0; Gaps
                                  0; Mismatches
              2; Conservative
```

```
9 AI 10
Qу
              11
            8 AI 9
RESULT 3
047451
ID
     Q47451
                 PRELIMINARY;
                                    PRT;
                                            11 AA.
AC
     Q47451;
DT
     01-NOV-1996 (TrEMBLrel. 01, Created)
DT
     01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Plasmid pRJ1004 DNA (Fragment).
DE
OS
     Escherichia coli.
OC
     Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
OC
     Enterobacteriaceae; Escherichia.
OX
     NCBI TaxID=562;
RN
     [1]
RΡ
     SEQUENCE FROM N.A.
RC
     STRAIN=pRJ1004;
RX
     MEDLINE=96130847; PubMed=8594334;
RA
     Brown N.L., Barrett S.R., Camakaris J., Lee B.T., Rouch D.A.;
RT
     "Molecular genetics and transport analysis of the copper-resistance
RT
     determinants (pco) from Escherichia coli plasmid pRJ1004.";
     Mol. Microbiol. 17:1153-1166(1995).
RL
DR
     EMBL; X83541; CAA58524.1; -.
DR
     PIR; S70166; S52252.
FT
     NON TER
                  11
                         11
SQ
     SEQUENCE
                11 AA; 1195 MW; 47D864F8ADC1A057 CRC64;
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.2e+05;
  Matches
            2; Conservative
                                0; Mismatches 0; Indels
                                                                  0; Gaps
                                                                               0;
            8 TA 9
Qу
              11
            6 TA 7
Db
RESULT 4
Q9AIZ7
ID
                                   PRT:
     Q9AIZ7
                 PRELIMINARY:
                                           11 AA.
AC
     Q9AIZ7;
DT
     01-JUN-2001 (TrEMBLrel. 17, Created)
     01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
DE
     Tryptophanyl-tRNA synthetase (Fragment).
GN
     TRPS.
OS
     Carsonella ruddii.
OC
     Bacteria; Proteobacteria; Gammaproteobacteria; Candidatus Carsonella.
OX
     NCBI TaxID=114186;
RN
     [1]
RP
     SEQUENCE FROM N.A.
RX
    MEDLINE=20336438; PubMed=10877784;
RA
     Thao M.L., Moran N.A., Abbot P., Brennan E.B., Burckhardt D.H.,
RA
     Baumann P.;
```

```
"Cospeciation of psyllids and their primary prokaryotic
RT
     endosymbionts.";
RT
     Appl. Environ. Microbiol. 66:2898-2905(2000).
RL
RN
     [2]
     SEQUENCE FROM N.A.
RP
    MEDLINE=21125546; PubMed=11222582;
RX
     Clark M.A., Baumann L., Thao M.L., Moran N.A., Baumann P.;
RA
     "Degenerative Minimalism in the Genome of a Psyllid Endosymbiont.";
RT
     J. Bacteriol. 183:1853-1861(2001).
RL
DR
     EMBL; AF211132; AAK15377.1; -.
     GO; GO:0004812; F:tRNA ligase activity; IEA.
DR
     Aminoacyl-tRNA synthetase.
KW
FT
     NON TER
                   1
                          1
                11 AA; 1333 MW; A28C67D6533059C6 CRC64;
     SEQUENCE
SQ
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 1.2e+05;
  Best Local Similarity
             2; Conservative 0; Mismatches
                                                   0; Indels
                                                                 0;
                                                                      Gaps
                                                                              0;
           10 IK 11
Qγ
              \perp
            6 IK 7
RESULT 5
O8RKN1
                                           11 AA.
                 PRELIMINARY;
                                   PRT;
ID
     Q8RKN1
AC
     Q8RKN1;
     01-JUN-2002 (TrEMBLrel. 21, Created)
DT
     01-JUN-2002 (TrEMBLrel. 21, Last sequence update)
     01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
DT
     Beta-lactamase CTX-M-9 (Fragment).
DE
     BLACTX-M-9.
GN
OS
     Escherichia coli.
     Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
OC
     Enterobacteriaceae; Escherichia.
OC
     NCBI TaxID=562;
OX
RN
     [1]
RP
     SEQUENCE FROM N.A.
RC
     STRAIN=743-D;
     Sabate M., Navarro F., Miro E., Campoy S., Mirelis B., Barbe J.,
RA
     Prats G.;
RA
     "A novel complex sull-type integron in Escherichia coli carrying the
RT
RT
     bla(CTX-M-9) gene.";
     Submitted (MAR-2002) to the EMBL/GenBank/DDBJ databases.
RL
     EMBL; AY092058; AAM15718.1; -.
DR
FT
     NON TER
                   1
                          1
                11 AA; 1071 MW; C26BF418D050440D CRC64;
SQ
     SEQUENCE
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 1.2e+05;
  Best Local Similarity
                                                                              0;
                                                                  0; Gaps
             2; Conservative 0; Mismatches 0; Indels
  Matches
            1 AR 2
QУ
              11
Db
            4 AR 5
```

```
RESULT 6
Q8L2T4
                                            11 AA.
                 PRELIMINARY;
                                    PRT;
ID
     Q8L2T4
AC
     Q8L2T4;
     01-OCT-2002 (TrEMBLrel. 22, Created)
DT
     01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DТ
     01-OCT-2002 (TrEMBLrel. 22, Last annotation update)
\mathrm{D}\mathrm{T}
     Histidinol phosphatase (Fragment).
DΕ
     Neisseria meningitidis.
OS
     Bacteria; Proteobacteria; Betaproteobacteria; Neisseriales;
OC
     Neisseriaceae; Neisseria.
OC
     NCBI TaxID=487;
OX
RN
     [1]
     SEQUENCE FROM N.A.
RP
     STRAIN=126E;
RC
     MEDLINE=22051050; PubMed=12055303;
RX
     Zhu P., Klutch M.J., Bash M.C., Tsang R.S.W., Ng L.K., Tsai C.M.;
RA
     "Genetic Diversity of Three Lgt Loci for Biosynthesis of
RT
     Lipooligosaccharide (LOS) in Neisseria Species.";
RT
     Microbiology 148:1833-1844(2002).
RL
     EMBL; AF470685; AAM33538.1; -.
DR
                          11
     NON TER
                   11
FT
                11 AA; 1273 MW;
                                   01EC828D0AA72050 CRC64;
     SEQUENCE
SO
                           18.2%; Score 2; DB 2; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 1.2e+05;
                                                                        Gaps
                                                                                0;
                                                     0; Indels
             2; Conservative
                                 0; Mismatches
  Matches
             5 RD 6
Qу
               11
             8 RD 9
Db
RESULT 7
P77404
     P77404
                  PRELIMINARY;
                                     PRT;
                                             11 AA.
ID
      P77404;
      01-FEB-1997 (TrEMBLrel. 02, Created)
DT
     01-FEB-1997 (TrEMBLrel. 02, Last sequence update)
DT
     01-NOV-1998 (TrEMBLrel. 08, Last annotation update)
DT
     DNA sequence downstream of the ECOPRRI HSD locus (Fragment).
DE
     HSDR.
GN
      Escherichia coli.
OS
      Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
OC
      Enterobacteriaceae; Escherichia.
OC
      NCBI TaxID=562;
OX
      [1]
RN
      SEQUENCE FROM N.A.
RP
      MEDLINE=97206151; PubMed=9157244;
RX
      Tyndall C., Lehnherr H., Sandmeier U., Kulik E., Bickle T.A.;
RA
      "The type IC hsd loci of the enterobacteria are flanked by DNA with
 RT
     high homology to the phage P1 genome: implications for the evolution
 RT
      and spread of DNA restriction systems.";
 RT
      Mol. Microbiol. 23:729-736(1997).
 RL
      EMBL; X98145; CAA66840.1; -.
 DR
      EMBL; X98144; CAA66839.1; -.
 DR
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714AB092A4072734 CRC64;
                11 AA; 1259 MW;
     SEQUENCE
SO
                          18.2%; Score 2; DB 2; Length 11;
  Ouery Match
                          100.0%; Pred. No. 1.2e+05;
  Best Local Similarity
                                                                               0;
                              0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
            2; Conservative
  Matches
            3 KS 4
Qу
              11
            1 KS 2
Dh
RESULT 8
Q8RMI8
                                    PRT;
                                            11 AA.
                 PRELIMINARY;
ΙD
     Q8RMI8
AC
     Q8RMI8;
     01-JUN-2002 (TrEMBLrel. 21, Created)
DT
     01-JUN-2002 (TrEMBLrel. 21, Last sequence update)
DΤ
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     ErmB (Fragment).
DE
GN
     ERMB.
     Enterococcus hirae.
OS
     Plasmid pMKH1.
OG
     Bacteria; Firmicutes; Lactobacillales; Enterococcaceae; Enterococcus.
OC
OX
     NCBI TaxID=1354;
RN
     [1]
     SEOUENCE FROM N.A.
RP
     Borgen K., Sorum M., Wasteson Y., Kruse H., Oppegaard H.;
RA
     "Genetic linkage between ermB and vanA in Enterococcus hirae of
RT
     poultry origin.";
RT
     Submitted (MAR-2002) to the EMBL/GenBank/DDBJ databases.
RL
     EMBL; AF493942; AAM18554.1; -.
DR
     GO; GO:0046821; C:extrachromosomal DNA; IEA.
DR
KW
     Plasmid.
                           1
     NON TER
                    1
FT
                         1359 MW; 08A7A8AA49C7273B CRC64;
                11 AA;
     SEOUENCE
SQ
                           18.2%; Score 2; DB 2; Length 11;
  Query Match
                           100.0%; Pred. No. 1.2e+05;
  Best Local Similarity
                                                                   0; Gaps
                                                                               0;
                                 0; Mismatches
                                                  0; Indels
  Matches
             2; Conservative
             2 RK 3
Qу
               \perp 1
            10 RK 11
Db
RESULT 9
Q44090
                                            11 AA.
                                    PRT;
                  PRELIMINARY;
     Q44090
ID
AC
     Q44090;
      01-NOV-1996 (TrEMBLrel. 01, Created)
\mathbf{DT}
      01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT
      01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Hypothetical export segment (Fragment).
DE
     Acholeplasma laidlawii.
OS
      Bacteria; Firmicutes; Mollicutes; Acholeplasmatales;
OC
      Acholeplasmataceae; Acholeplasma.
OC
```

1

NON TER

FT

1

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OX
     NCBI TaxID=2148;
RN
     [1]
RP
     SEQUENCE FROM N.A.
RC
     STRAIN=A-EF22;
RA
     Boyer M.J., Jarhede T.K., Tegman V., Wieslander A.;
RT
     "Sequence regions from Acholeplasma laidlawii which restore export of
RT
     beta-lactamase in Escherichia coli.";
RL
     Submitted (JUN-1993) to the EMBL/GenBank/DDBJ databases.
DR
     EMBL; Z22875; CAA80495.1; -.
     PIR; S33519; S33519.
DR
FT
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                11 AA; 1234 MW; 5C9D2AE8A682C337 CRC64;
  Query Match
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            2; Conservative 0; Mismatches 0; Indels
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            7 MT 8
Qу
             | | 1
            7 MT 8
Db
RESULT 10
Q44237
ID
    Q44237
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ΑC
     Q44237;
DT
     01-NOV-1996 (TrEMBLrel. 01, Created)
DT
     01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DE
     Glutamine synthetase (Fragment).
GN
    GLNA.
OS
    Anabaena sp. (strain PCC 7120).
     Bacteria; Cyanobacteria; Nostocales; Nostocaceae; Nostoc.
OC
OX
    NCBI TaxID=103690;
RN
     [1]
RP
     SEQUENCE FROM N.A.
RC
     STRAIN=PCC 7120;
RA
    Warner L.E., Ligon P.J., Stahel A.W., Curtis S.E.;
RT
     "The apcF gene of Anabaena sp. strain PCC 7120 is regulated by
RT
     nitrogen and the apcF and glnA promoters overlap.";
     Submitted (MAY-1995) to the EMBL/GenBank/DDBJ databases.
RL
RN
RP
     SEQUENCE FROM N.A.
RC
    STRAIN=PCC 7120;
RA
     Scappino L.A.;
RL
     Submitted (FEB-1995) to the EMBL/GenBank/DDBJ databases.
DR
     EMBL; U21853; AAA65652.1; -.
FT
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                 11
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SO
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               11 AA; 1316 MW;
                                  2000580E32CB06C7 CRC64;
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity
                         100.0%; Pred. No. 1.2e+05;
            2; Conservative
                               0; Mismatches 0; Indels 0; Gaps
 Matches
                                                                             0;
            7 MT 8
Qу
             \perp
Db
            1 MT 2
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RESULT 11
Q9R872
                                            11 AA.
                                   PRT;
                 PRELIMINARY;
ID
     09R872
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AC
     01-MAY-2000 (TrEMBLrel. 13, Created)
DT
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DΤ
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Dihydrofolate reductase (Fragment).
DE
     DFR1.
GN
     Escherichia coli.
OS
     Plasmid r483.
OG
     Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
OC
     Enterobacteriaceae; Escherichia.
OC
     NCBI TaxID=562;
OX
RN
     [1]
     SEQUENCE FROM N.A.
RP
     TRANSPOSON=Tn7;
RC
     Hansson K., Sundstrom L., Pelletier A., Roy P.H.;
     "Sequence and function of the second type of integron in Tn7.";
RT
     Submitted (SEP-1997) to the EMBL/GenBank/DDBJ databases.
RL
RN
     [2]
     SEQUENCE FROM N.A.
RP
     TRANSPOSON=Tn7;
RC
     MEDLINE=82220022; PubMed=6283361;
RX
     Lichtenstein C., Brenner S.;
RA
     "Unique insertion site of Tn7 in the E. coli chromosome.";
RT
     Nature 297:601-603(1982).
RL
RN
     [3]
     SEQUENCE FROM N.A.
RP
     TRANSPOSON=Tn7;
RC
     MEDLINE=83290694; PubMed=6411680;
RX
     Simonsen C.C., Chen E.Y., Levinson A.D.;
RA
     "Identification of the type I trimethoprim-resistant dihydrofolate
RT
     reductase specified by the Escherichia coli R-plasmid R483: Comparison
RT
     with procaryotic and eucaryotic dihydrofolate reductases.";
RT
     J. Bacteriol. 155:1001-1008(1983).
RL
RN
     [4]
     SEQUENCE FROM N.A.
RP
     TRANSPOSON=Tn7;
RC
     MEDLINE=83272957; PubMed=6308574;
RX
     Fling M.E., Richards C.;
RA
     "The nucleotide sequence of the trimethoprim-resistant dihydrofolate
RT
     reductase gene harbored by Tn7.";
RT
     Nucleic Acids Res. 11:5147-5158(1983).
RL
     EMBL; AJ001816; CAA05032.1; -.
DR
     GO; GO:0046821; C:extrachromosomal DNA; IEA.
DR
     Plasmid.
KW.
     NON TER
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FT
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                 11 AA; 1221 MW; 92014864C2C69735 CRC64;
     SEQUENCE
SQ
                                   Score 2; DB 2; Length 11;
                           18.2%;
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                                    Pred. No. 1.2e+05;
                           100.0%;
  Best Local Similarity
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                                                     0; Indels
                                                                   0; Gaps
                                  0; Mismatches
              2: Conservative
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Db 8 AI 9
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RESULT 12
Q8GL24
                                            11 AA.
                 PRELIMINARY;
                                    PRT:
ΙD
     Q8GL24
AC
     Q8GL24;
     01-MAR-2003 (TrEMBLrel. 23, Created)
DT
     01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     PF-50 protein (Fragment).
DE
GN
     Borrelia burgdorferi (Lyme disease spirochete).
os
     Plasmid group cp32-6.
OG
     Bacteria; Spirochaetes; Spirochaetales; Spirochaetaceae; Borrelia.
OC
OX
     NCBI TaxID=139;
RN
     [1]
     SEQUENCE FROM N.A.
RP
     STRAIN=Sh-2-82;
RC
     Stevenson B., Miller J.C.;
RA
     "Comparative analyses of Borrelia burgdorferi erp genes and their cp32
RT
     prophages: conservation amidst diversity.";
RT
     Submitted (AUG-2002) to the EMBL/GenBank/DDBJ databases.
RL
     EMBL; AY142093; AAN17876.1; -.
DR
     GO; GO:0046821; C:extrachromosomal DNA; IEA.
DR
     Plasmid.
KW
     NON TER
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FT
                11 AA; 1366 MW; 4E441D5330504373 CRC64;
     SEOUENCE
SQ
                           18.2%; Score 2; DB 2; Length 11;
  Query Match
                           100.0%; Pred. No. 1.2e+05;
  Best Local Similarity
                                                                   0; Gaps
                                                                               0;
             2; Conservative
                                0; Mismatches
                                                    0; Indels
  Matches
           10 IK 11
Qу
              11
            3 IK 4
Db
RESULT 13
Q8GL19
                  PRELIMINARY;
                                    PRT:
                                            11 AA.
ID
     Q8GL19
AC
     08GL19;
     01-MAR-2003 (TrEMBLrel. 23, Created)
DT
     01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     PF-50 protein (Fragment).
DΕ
GN
     PF-50.
     Borrelia burgdorferi (Lyme disease spirochete).
OS
     Plasmid group cp32-11.
OG
     Bacteria; Spirochaetes; Spirochaetales; Spirochaetaceae; Borrelia.
OC
OX
     NCBI TaxID=139;
RN
     [1]
RP
     SEQUENCE FROM N.A.
RC
     STRAIN=Sh-2-82;
      Stevenson B., Miller J.C.;
RA
      "Comparative analyses of Borrelia burgdorferi erp genes and their cp32
RT
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Submitted (AUG-2002) to the EMBL/GenBank/DDBJ databases.
RL
     EMBL; AY142096; AAN17880.1; -.
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     GO; GO:0046821; C:extrachromosomal DNA; IEA.
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     Plasmid.
FT
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                          1
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SO
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                          18.2%; Score 2; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 1.2e+05;
             2; Conservative 0; Mismatches
 Matches
                                                    0; Indels
                                                                               0;
                                                                       Gaps
           10 IK 11
Qy
              11
Db
            3 IK 4
RESULT 14
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                 PRELIMINARY;
                                    PRT:
                                            11 AA.
AC
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     01-OCT-2003 (TrEMBLrel. 25, Created)
DT
     01-OCT-2003 (TrEMBLrel. 25, Last sequence update)
DT
     01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DT
DE
     PdtJ (Fragment).
     PDTJ.
GN
     Pseudomonas putida.
OS
OC
     Bacteria; Proteobacteria; Gammaproteobacteria; Pseudomonadales;
OC
     Pseudomonadaceae; Pseudomonas.
OX
     NCBI TaxID=303;
RN
     [1]
RP
     SEQUENCE FROM N.A.
     STRAIN=DSM 3601;
RC
RA
     Lewis T.A., Leach L., Morales S.E., Austin P.R., Hartwell H.J.,
RA
     Kaplan B., Forker C., Meyer J.-M.;
RT
     "Physiological and molecular genetic evaluation of the dechlorination
RT
     agent, pyridine-2,6-bis (monothiocarboxylic acid)(PDTC), as a
RT
     secondary siderophore of Pseudomonas sp.";
     Submitted (JUN-2003) to the EMBL/GenBank/DDBJ databases.
RL
DR
     EMBL; AY319946; AAQ01713.1; -.
FT
     NON TER
                  11
                         11
SQ
     SEQUENCE
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                          18.2%; Score 2; DB 2; Length 11;
 Ouerv Match
 Best Local Similarity
                          100.0%; Pred. No. 1.2e+05;
             2; Conservative
                                 0; Mismatches
 Matches
                                                    0; Indels
                                                                   0; Gaps
                                                                               0;
            8 TA 9
Qy
              \mathbf{I}
Db
            3 TA 4
RESULT 15
O9URG1
ID
     Q9URG1
                 PRELIMINARY;
                                    PRT;
                                            11 AA.
AC
     Q9URG1;
DT
     01-MAY-2000 (TrEMBLrel. 13, Created)
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prophages: conservation amidst diversity.";

RT

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01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT
     01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
DT
     Cytochrome C oxidase subunit 2 (Fragment).
DE
     Neurospora crassa.
OS
     Eukaryota; Fungi; Ascomycota; Pezizomycotina; Sordariomycetes;
OC
     Sordariomycetidae; Sordariales; Sordariaceae; Neurospora.
OC
     NCBI TaxID=5141;
OX
RN
     [1]
     SEQUENCE FROM N.A.
RΡ
     MEDLINE=92035058; PubMed=1657411;
RX
     Lemire E.G., Percy J.A., Correia J.M., Crowther B.M., Nargang F.E.;
RA
     "Alteration of the cytochrome c oxidase subunit 2 gene in the [exn-5]
RT
     mutant of Neurospora crassa.";
RT
     Curr. Genet. 20:121-127(1991).
RL
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FT
     NON TER
     NON TER
                  11
                         11
FT
                                  936B1558C7605DC5 CRC64;
                        1222 MW;
     SEQUENCE
                11 AA;
SQ
                                  Score 2; DB 3; Length 11;
                          18.2%;
  Query Match
                          100.0%; Pred. No. 1.2e+05;
  Best Local Similarity
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                                 0; Mismatches
                                                    0;
                                                        Indels
                                                                  0; Gaps
             2; Conservative
  Matches
            9 AI 10
Qу
              11
            5 AI 6
RESULT 16
096V15
                                            11 AA.
                                    PRT;
                 PRELIMINARY;
     Q96V15
ID
     Q96V15;
AC
     01-DEC-2001 (TrEMBLrel. 19, Created)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
     Pheromone alpha (Fragment).
DE
     MFALPHA1A.
GN
     Cryptococcus neoformans var. neoformans.
OS
     Eukaryota; Fungi; Basidiomycota; Hymenomycetes; Heterobasidiomycetes;
OC
     Tremellomycetidae; Tremellales; Tremellaceae; Filobasidiella.
OC
     NCBI TaxID=40410;
OX
RN
     [1]
RΡ
     SEQUENCE FROM N.A.
     STRAIN=IUM 98-3351;
RC
     MEDLINE=21538945; PubMed=11682503;
RX
     Cogliati M., Esposto M.C., Clarke D.L., Wickes B.L., Viviani M.A.;
RA
     "Origin of Cryptococcus neoformans var. neoformans Diploid Strains.";
RT
     J. Clin. Microbiol. 39:3889-3894(2001).
RL
     EMBL; AF377019; AAK55615.1; -.
DR
                           1
     NON TER
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FT
                          11
     NON TER
                   11
FT
                11 AA; 1154 MW; C764AF6E786761ED CRC64;
     SEOUENCE
SO
                           18.2%; Score 2; DB 3; Length 11;
  Query Match
                           100.0%; Pred. No. 1.2e+05;
  Best Local Similarity
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                                                        Indels
                                                                   0;
                                                                       Gaps
             2; Conservative 0; Mismatches
                                                    0;
  Matches
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Db 9 MT 10
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RESULT 17
Q14759
                                            11 AA.
                                    PRT:
                 PRELIMINARY;
ID
     Q14759
AC
     014759;
     01-NOV-1996 (TrEMBLrel. 01, Created)
DT
     01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
     Lymphocyte cytosolic protein 2 (Fragment).
DΕ
GN
     LCP2.
     Homo sapiens (Human).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OC
     NCBI TaxID=9606;
OX
RN
     [1]
     SEQUENCE FROM N.A.
RP
     Sunden S.L.F., Carr L.L., Clements J.L, Motto D.G., Koretzky G.A.;
RA
     "Polymorphism in and localization of the gene encoding the 76 kDa SH2
RT
     domain-containing Leukocyte Protein (SLP-76) to chromosome 5q33.1-
RT
     qter.";
RT
     Genomics 0:0-0(1995).
RL
     EMBL; U44065; AAA93308.1; -.
DR
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FT
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     NON TER
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FT
                11 AA; 1242 MW;
                                   D695104224072DDD CRC64;
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                           18.2%; Score 2; DB 4; Length 11;
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  Best Local Similarity
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                                                                       Gaps
                                                       Indels
                                                                   0:
             2; Conservative
                                  0; Mismatches
                                                    0;
  Matches
            2 RK 3
Qу
              11
            7 RK 8
Db
RESULT 18
Q9NY38
                  PRELIMINARY;
                                             11 AA.
ID
     Q9NY38
AC
     O9NY38;
     01-OCT-2000 (TrEMBLrel. 15, Created)
DT
     01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
DT
     01-OCT-2000 (TrEMBLrel. 15, Last annotation update)
DT
     Heavy metal-responsive transcription factor (Fragment).
DE
     MTF-1.
GN
     Homo sapiens (Human).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OC
     NCBI TaxID=9606;
OX
 RN
      [1]
      SEQUENCE FROM N.A.
RP
     Auf der Maur A., Belser T., Wang Y., Gunes C., Lichtlen P.,
 RA
     Georgiev O., Schaffner W.;
 RA
      "Characterization of the mouse gene for the heavy metal-responsive
 RT
      transcription factor MTF-1.";
 RT
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Submitted (DEC-1999) to the EMBL/GenBank/DDBJ databases.
RL
     EMBL; AJ251881; CAB71327.1; -.
DR
     NON TER
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FT
                  11
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     NON TER
FT
                11 AA; 1099 MW; A8653693773772C6 CRC64;
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SO
                          18.2%; Score 2; DB 4; Length 11;
  Ouery Match
  Best Local Similarity 100.0%; Pred. No. 1.2e+05;
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
                               0; Mismatches
 Matches
            2; Conservative
            9 AI 10
              11
            2 AI 3
Db
RESULT 19
09Y3G2
                                   PRT;
                                           11 AA.
                 PRELIMINARY;
ID
     Q9Y3G2
     Q9Y3G2;
AC
     01-NOV-1999 (TrEMBLrel. 12, Created)
DT
     01-NOV-1999 (TrEMBLrel. 12, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     LSFR2 protein (Fragment).
DE
     LSFR2.
GN
     Homo sapiens (Human).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OC
     NCBI TaxID=9606;
OX
     [1]
RN
     SEQUENCE FROM N.A.
RP
     MEDLINE=99299247; PubMed=10369878;
RX
     Gilley J., Fried M.;
RA
     "Extensive gene order differences within regions of conserved synteny
RT
     between the Fugu and human genomes: implications for chromosomal
RT
     volution and the cloning of disease genes.";
RT
     Hum. Mol. Genet. 8:1313-1320(1999).
RL
     EMBL; Y17456; CAB44349.1; -.
DR
     NON TER
                          1
FT
                   1
                         11
FT
     NON TER
                  11
                11 AA; 1342 MW; 68C5E5D7A8772324 CRC64;
SO
     SEQUENCE
                           18.2%; Score 2; DB 4; Length 11;
  Query Match
                          100.0%; Pred. No. 1.2e+05;
  Best Local Similarity
                                                                  0; Gaps
                                                                              0;
                                                    0: Indels
                                0; Mismatches
  Matches
             2: Conservative
            2 RK 3
Qy
              11
Db
            4 RK 5
RESULT 20
Q9UNL8
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                                            11 AA.
ID
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                 PRELIMINARY;
AC
     Q9UNL8;
     01-MAY-2000 (TrEMBLrel. 13, Created)
DT
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT
     01-MAY-2000 (TrEMBLrel. 13, Last annotation update)
DТ
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```
APC2 protein (Fragment).
DΕ
GN
     APC2.
     Homo sapiens (Human).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OC
     NCBI TaxID=9606;
OX
RN
     [1]
     SEQUENCE FROM N.A.
RP
     Carr I.M., Markham A.F., Colleta P.L., Wai L., Askham J., Morrison E.,
RA
RA
     Meredith D.M.;
     "APC2 partial gene sequence.";
RT
     Submitted (DEC-1998) to the EMBL/GenBank/DDBJ databases.
RL
     EMBL; AF110338; AAD29275.1; -.
DR
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                  1
                          1
FT
     NON TER
                  11
                         11
FT
                11 AA; 1326 MW; 75881D7BB441EAB4 CRC64;
     SEQUENCE
SQ
                          18.2%; Score 2; DB 4; Length 11;
  Query Match
                          100.0%; Pred. No. 1.2e+05;
  Best Local Similarity
                                                                               0;
                                                    0; Indels
                                                                   0; Gaps
                                0; Mismatches
             2; Conservative
  Matches
            5 RD 6
Qу
              11
            4 RD 5
Db
RESULT 21
Q9UCP5
                 PRELIMINARY;
                                    PRT;
                                            11 AA.
     Q9UCP5
ID
AC
     O9UCP5;
     01-MAY-2000 (TrEMBLrel. 13, Created)
DT
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Aggrecan core protein (Fragment).
DE
     Homo sapiens (Human).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OC
     NCBI TaxID=9606;
OX
RN
     [1]
RP
     SEOUENCE.
RX
     MEDLINE=92235266; PubMed=1569188;
     Sandy J.D., Flannery C.R., Neame P.J., Lohmander L.S.;
RA
     J. Clin. Invest. 89:1512-1516(1992).
RL
     GO; GO:0005201; F:extracellular matrix structural constituent; TAS.
DR
     GO; GO:0006508; P:proteolysis and peptidolysis; NAS.
DR
     GO; GO:0001501; P:skeletal development; NAS.
DR
                           1
\mathbf{FT}
     NON TER
                   1
                          11
FT
     NON TER
                   11
                                   8FBFE8DFE72042D5 CRC64;
                 11 AA; 1149 MW;
SO
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  Query Match
                           100.0%; Pred. No. 1.2e+05;
  Best Local Similarity
                                                                        Gaps
             2; Conservative 0; Mismatches
                                                     0; Indels
                                                                   0:
  Matches
             1 AR 2
Qy
               \mathbf{I}
 Db
             1 AR 2
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```
RESULT 22
Q16234
ID
     Q16234
                 PRELIMINARY;
                                    PRT;
                                            11 AA.
AC
     016234;
DT
     01-NOV-1996 (TrEMBLrel. 01, Created)
     01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
DE
     HuD protein (Fragment).
GN
     HUD.
OS
     Homo sapiens (Human).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC.
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
     NCBI TaxID=9606;
OX
RN
     [1]
RP
     SEQUENCE FROM N.A.
     MEDLINE=94349312; PubMed=8069866;
RX
     Sekido Y., Bader S.A., Carbone D.P., Johnson B.E., Minna J.D.;
RA
     "Molecular analysis of the HuD gene encoding a paraneoplastic
RT
RT
     encephalomyelitis antigen in human lung cancer cell lines.";
RL
     Cancer Res. 54:4988-4992(1994).
DR
     EMBL; S73887; AAD14142.1; -.
DR
     PIR; I52708; I52708.
FT
     NON TER
                  11
                         11
     SEQUENCE
SQ
                11 AA; 1289 MW;
                                   2EDCF20E204415A7 CRC64;
                          18.2%;
  Query Match
                                   Score 2; DB 4; Length 11;
                          100.0%; Pred. No. 1.2e+05;
  Best Local Similarity
  Matches
             2; Conservative
                                0; Mismatches
                                                    0; Indels
                                                                               0;
                                                                       Gaps
            4 SR 5
Qу
              11
Db
            5 SR 6
RESULT 23
Q9UBM2
ID
     Q9UBM2
                 PRELIMINARY;
                                    PRT;
                                            11 AA.
AC
     Q9UBM2;
     01-MAY-2000 (TrEMBLrel. 13, Created)
DΤ
DT
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE
     ETV6 protein (Fragment).
GN
OS
     Homo sapiens (Human).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OC
OX
     NCBI TaxID=9606;
RN
     [1]
RP
     SEQUENCE FROM N.A.
RA
     Montgomery K.T., Lau S.T., Renault B., Yoon S.J., Baens M.,
RA
     Marynen P., Kucherlapati R.;
RT
     "Towards the Complete Sequence of Chromosome 12.";
     Submitted (DEC-1996) to the EMBL/GenBank/DDBJ databases.
RL
RN
RP
     SEQUENCE FROM N.A.
```

```
Baens M., Peeters P., Guo C., Aerssens J., Marynen P.;
RA
     Submitted (JAN-1996) to the EMBL/GenBank/DDBJ databases.
RL
     EMBL; U81830; AAB39862.1; -.
DR
     EMBL; U45432; AAB17016.1; -.
DR
                  11
     NON TER
                         11
FT
                11 AA; 1194 MW; 8267C587A6DDC771 CRC64;
     SEQUENCE
SO
                          18.2%; Score 2; DB 4; Length 11;
  Query Match
                          100.0%; Pred. No. 1.2e+05;
  Best Local Similarity
                                  0; Mismatches
                                                    0; Indels
                                                                       Gaps
                                                                               0;
             2; Conservative
           10 IK 11
Qу
              | \cdot |
           10 IK 11
Db
RESULT 24
O8NI03
                                            11 AA.
     Q8NI03
                 PRELIMINARY;
                                    PRT;
ID
     Q8NI03;
AC
     01-OCT-2002 (TrEMBLrel. 22, Created)
DT
     01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT
     01-OCT-2002 (TrEMBLrel. 22, Last annotation update)
DT
     25 hydroxyvitamin d3 1-alpha hydroxylase (Fragment).
DE
     Homo sapiens (Human).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OC
OX
     NCBI TaxID=9606;
     [1]
RN
     SEOUENCE FROM N.A.
RP
     Ebert R., Schneider D., Jovanovic M., Adamski J., Jakob F.;
RA
     Submitted (APR-2002) to the EMBL/GenBank/DDBJ databases.
RL
     EMBL; AF500480; AAM21669.1; -.
DR
     NON TER
                          11
                   11
FT
                                   82C14E84CB533731 CRC64;
     SEQUENCE
                        1298 MW;
                 11 AA;
SQ
                           18.2%; Score 2; DB 4; Length 11;
  Query Match
                           100.0%; Pred. No. 1.2e+05;
  Best Local Similarity
                                                                                0;
                                  0; Mismatches
                                                     0;
                                                        Indels
                                                                   0; Gaps
             2; Conservative
  Matches
             4 SR 5
Qу
               \mathbf{I}
Db
             9 SR 10
RESULT 25
Q9UCR1
                                    PRT;
                                             11 AA.
ID
     Q9UCR1
                  PRELIMINARY;
     Q9UCR1;
AC
     01-MAY-2000 (TrEMBLrel. 13, Created)
DT
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT
     01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
DT
DE
     AUTOTAXIN (Fragment).
     Homo sapiens (Human).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OC
OX
     NCBI TaxID=9606;
```

```
RN
     [1]
     SEQUENCE.
RP
     MEDLINE=92129337; PubMed=1733949;
RX
     Stracke M.L., Krutzsch H.C., Unsworth E.J., Arestad A., Cioce V.,
RA
     Schiffmann E., Liotta L.A.;
     "Identification, purification, and partial sequence analysis of
RT
     autotaxin, a novel motility-stimulating protein.";
RT
     J. Biol. Chem. 267:2524-2529(1992).
RL
     NON TER
                  1
                          1
FT
FT
     NON_TER
                  11
                         11
                                  2723615AA0437737 CRC64;
                11 AA; 1171 MW;
     SEQUENCE
SO
                          18.2%; Score 2; DB 4; Length 11;
  Query Match
                          100.0%; Pred. No. 1.2e+05;
  Best Local Similarity
                                                                      Gaps
                                                                               0;
             2; Conservative
                                0; Mismatches
                                                    0; Indels
                                                                  0;
  Matches
            8 TA 9
Qy
              \mathbf{H}
            8 TA 9
Db
RESULT 26
O9HCN5
                                    PRT;
                                            11 AA.
                 PRELIMINARY;
ID
     Q9HCN5
     Q9HCN5;
AC
     01-MAR-2001 (TrEMBLrel. 16, Created)
DΤ
     01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
DT
     01-MAR-2003 (TrEMBLrel. 23, Last annotation update)
DT
     Platelet glycoprotein VI (Fragment).
DE
     GPVI OR GP6.
GN
     Homo sapiens (Human).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OC
OX
     NCBI TaxID=9606;
RN
     [1]
     SEQUENCE FROM N.A.
RP
     MEDLINE=20483673; PubMed=11027634;
RX
     Ezumi Y., Uchiyama T., Takayama H.;
RA
     "Molecular cloning, genomic structure, chromosomal localization, and
RT
     alternative splice forms of the platelet collagen receptor
RT
     glycoprotein VI.";
RT
     Biochem. Biophys. Res. Commun. 277:27-36(2000).
RL
RN
     [2]
     SEQUENCE FROM N.A.
RP
     MEDLINE=22359008; PubMed=12359731;
RX
     Holmes M.L., Bartle N., Eisbacher M., Chong B.H.;
RA
     "Cloning and Analysis of the Thrombopoietin-induced Megakaryocyte-
RT
     specific Glycoprotein VI Promoter and Its Regulation by GATA-1, Fli-1,
RT
     and Sp1.";
RT
     J. Biol. Chem. 277:48333-48341(2002).
RL
     EMBL; AB043943; BAB12248.1; -.
DR
     EMBL; AF521646; AAN86273.1; -.
DR
     NON TER
                   11
                          11
FT
                                   8D7839FE2DC1B775 CRC64;
                         1166 MW;
     SEQUENCE
                 11 AA;
SQ
                           18.2%; Score 2; DB 4; Length 11;
  Query Match
                           100.0%; Pred. No. 1.2e+05;
  Best Local Similarity
```

```
Matches
            2; Conservative
                                 0; Mismatches
                                                  0; Indels
                                                                  0; Gaps
                                                                              0;
            8 TA 9
Qy
              6 TA 7
Db
RESULT 27
Q25916
ID
     Q25916
                 PRELIMINARY;
                                   PRT:
                                           11 AA.
AC
     Q25916;
DT
     01-NOV-1996 (TrEMBLrel. 01, Created)
     01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT
\mathtt{DT}
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
     Malaria antigen (7H8/2) (Fragment).
DE
     Plasmodium falciparum.
OS
     Eukaryota; Alveolata; Apicomplexa; Haemosporida; Plasmodium.
OC
     NCBI TaxID=5833;
OX
RN
     [1]
     SEQUENCE FROM N.A.
RP
RX
     MEDLINE=91164876; PubMed=1706114;
RA
     Limpaiboon T., Taylor D., Jones G., Geysen H.M., Saul A.;
RT
     "Characterization of a Plasmodium falciparum epitope recognized by a
RT
     monoclonal antibody with broad isolate and species specificity.";
RL
     Southeast Asian J. Trop. Med. Public Health 21:388-396(1990).
DR
     EMBL; M31305; AAA29645.1; -.
FT
     NON TER
                   1
                          1
     SEQUENCE
SQ
              11 AA; 1415 MW; DB03D3BC42C33699 CRC64;
  Query Match
                          18.2%; Score 2; DB 5; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.2e+05;
  Matches
           2; Conservative 0; Mismatches 0; Indels
                                                                 0; Gaps
                                                                              0;
            3 KS 4
Qу
              11
Db
            1 KS 2
RESULT 28
Q9NFX0
ID
     Q9NFX0
                 PRELIMINARY;
                                   PRT;
                                           11 AA.
AC
     Q9NFX0;
DT
     01-OCT-2000 (TrEMBLrel. 15, Created)
DT
     01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
DΤ
     01-JUN-2001 (TrEMBLrel. 17, Last annotation update)
DE
    Mitochondrial aconitase (Fragment).
GN
     ACON OR MAC OR CG9244.
OS
     Drosophila melanogaster (Fruit fly).
OC
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC
     Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha;
OC
     Ephydroidea; Drosophilidae; Drosophila.
OX
     NCBI TaxID=7227;
RN
RP
     SEQUENCE FROM N.A.
RC
     STRAIN=CANTON S;
RA
     Lind M.I.;
RT
     "Charaterisation of two iron regulatory proteins and mitochondrial
```

```
RТ
     aconitase in Drosophila melanogaster.";
RL
     Submitted (DEC-1999) to the EMBL/GenBank/DDBJ databases.
     EMBL; AJ252019; CAB93522.1; -.
DR
DR
     FlyBase; FBgn0010100; Acon.
FT
     NON TER
                  11
                         11
                11 AA; 1204 MW; 7C889CE4D4469734 CRC64;
SQ
     SEQUENCE
  Query Match
                          18.2%; Score 2; DB 5; Length 11;
                          100.0%; Pred. No. 1.2e+05;
  Best Local Similarity
                               0; Mismatches
             2; Conservative
  Matches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            1 AR 2
Qy
             11
            3 AR 4
Db
RESULT 29
O8MPQ3
     Q8MPQ3
                                   PRT;
ID
                PRELIMINARY;
                                           11 AA.
AC
     Q8MPQ3;
     01-OCT-2002 (TrEMBLrel. 22, Created)
DT
     01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT
     01-MAR-2003 (TrEMBLrel. 23, Last annotation update)
DT
     Hypothetical protein Y23H5A.8b.
DE
     Y23H5A.8.
GN
     Caenorhabditis elegans.
os
     Eukaryota; Metazoa; Nematoda; Chromadorea; Rhabditida; Rhabditoidea;
OC
OC
     Rhabditidae; Peloderinae; Caenorhabditis.
OX
     NCBI TaxID=6239;
RN
     [1]
RP
     SEQUENCE FROM N.A.
RC
     STRAIN=Bristol N2;
RX
    MEDLINE=99069613; PubMed=9851916;
RA
     Waterston R.;
     "Genome sequence of the nematode C. elegans: a platform for
RT
     investigating biology. The C. elegans Sequencing Consortium.";
RT
     Science 282:2012-2018(1998).
RL
RN
     [2]
RP
     SEQUENCE FROM N.A.
RC
     STRAIN=Bristol N2;
     Dempsey S., Le T.T.;
RA
RT
     "The sequence of C. elegans cosmid Y23H5A.";
RL
     Submitted (JUL-1998) to the EMBL/GenBank/DDBJ databases.
RN
     [3]
RP
     SEQUENCE FROM N.A.
RC
     STRAIN=Bristol N2;
RA
     Waterston R.;
RL
     Submitted (JUN-2002) to the EMBL/GenBank/DDBJ databases.
DR
     EMBL; AF077541; AAM54173.1; -.
DR
    WormPep; Y23H5A.8b; CE31097.
ΚW
     Hypothetical protein.
SQ
     SEQUENCE
               11 AA; 1319 MW; 6920D63A21B77414 CRC64;
  Query Match
                          18.2%; Score 2; DB 5; Length 11;
                          100.0%; Pred. No. 1.2e+05;
  Best Local Similarity
             2; Conservative
                              0; Mismatches
                                                 0; Indels
                                                                  0; Gaps
                                                                              0;
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```
4 SR 5
Qу
              11
            3 SR 4
Db
RESULT 30
Q9TRR7
ID
     Q9TRR7
                 PRELIMINARY;
                                    PRT;
                                            11 AA.
AC
     Q9TRR7;
DΨ
     01-MAY-2000 (TrEMBLrel. 13, Created)
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT
     01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
DT
DΕ
     Calcyclin-associated protein, CAP50=CA2+/phospholipid-binding protein
DΕ
     L-13 fragment (Fragment).
     Oryctolagus cuniculus (Rabbit).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Lagomorpha; Leporidae; Oryctolagus.
OC
OX
     NCBI TaxID=9986;
RN
     [1]
     SEQUENCE.
RP
     MEDLINE=92250478; PubMed=1533622;
RX
     Tokumitsu H., Mizutani A., Minami H., Kobayashi R., Hidaka H.;
RA
RT
     "A calcyclin-associated protein is a newly identified member of the
RT
     Ca2+/phospholipid-binding proteins, annexin family.";
     J. Biol. Chem. 267:8919-8924(1992).
RL
FT
     NON TER
                   1
                          1
     NON TER
FT
                  11
                         11
SQ
     SEQUENCE
                11 AA; 1310 MW;
                                  55580B0F5DDAA9C7 CRC64;
  Query Match
                          18.2%; Score 2; DB 6; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.2e+05;
  Matches
             2; Conservative
                               0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                               0;
           10 IK 11
Qу
              11
           10 IK 11
Db
RESULT 31
Q9XSP7
     Q9XSP7
                                    PRT;
                                            11 AA.
ID
                 PRELIMINARY;
AC
     O9XSP7;
DT
     01-NOV-1999 (TrEMBLrel. 12, Created)
     01-NOV-1999 (TrEMBLrel. 12, Last sequence update)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
DΕ
     Platelet-derived growth factor A chain (Fragment).
GN
OS
     Pygathrix nemaeus (Dove langur).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
OC
     Mammalia; Eutheria; Primates; Catarrhini; Cercopithecidae; Colobinae;
OC
     Pygathrix.
     NCBI TaxID=54133;
OX
RN
     [1]
RP
     SEQUENCE FROM N.A.
RX
     MEDLINE=20065871; PubMed=10598812;
RA
     Bonthron D.T., Smith S.L., Campbell R.;
```

"Complex patterns of intragenic polymorphism at the PDGFA locus.";

RT

```
Hum. Genet. 105:452-459(1999).
RL
     EMBL; AJ243282; CAB45924.1; -.
DR
    NON TER
                   1
FT
                  11
                         11
    NON TER
FT
                                  7FB881F101E1E044 CRC64;
                        1345 MW;
SO
     SEQUENCE
                11 AA;
                          18.2%; Score 2; DB 6; Length 11;
  Query Match
                          100.0%; Pred. No. 1.2e+05;
  Best Local Similarity
                                                                      Gaps
                                                                              0;
                                                    0; Indels
                                                                  0;
                                0; Mismatches
             2; Conservative
 Matches
            4 SR 5
Qу
              11
            3 SR 4
Db
RESULT 32
O9XSP2
                                           11 AA.
                 PRELIMINARY;
                                   PRT;
ΙD
     Q9XSP2
     Q9XSP2;
     01-NOV-1999 (TrEMBLrel. 12, Created)
     01-NOV-1999 (TrEMBLrel. 12, Last sequence update)
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
     Platelet-derived growth factor A chain (Fragment).
DE
GN
     Hylobates syndactylus (Siamang) (Symphalangus syndactylus).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Primates; Catarrhini; Hylobatidae; Hylobates.
OC
     NCBI TaxID=9590;
OX
     [1]
RN
     SEQUENCE FROM N.A.
RP
     MEDLINE=20065871; PubMed=10598812;
RX
     Bonthron D.T., Smith S.L., Campbell R.;
RA
     "Complex patterns of intragenic polymorphism at the PDGFA locus.";
RT
     Hum. Genet. 105:452-459(1999).
RL
     EMBL; AJ243280; CAB45927.1; -.
DR
     NON TER
                          1
FT
                   1
                         11
     NON TER
                  11
FT
                                  7FB881F101E1E044 CRC64;
                11 AA; 1345 MW;
     SEQUENCE
SO
                           18.2%; Score 2; DB 6; Length 11;
  Query Match
                          100.0%; Pred. No. 1.2e+05;
  Best Local Similarity
                                                                               0;
                                                                       Gaps
                                                    0; Indels
                                                                  0;
             2; Conservative
                                 0; Mismatches
            4 SR 5
Qу
              \perp
             3 SR 4
Db.
RESULT 33
Q9XSP5
                                            11 AA.
                  PRELIMINARY;
                                    PRT;
     Q9XSP5
ID
AC
     Q9XSP5;
     01-NOV-1999 (TrEMBLrel. 12, Created)
DT
     01-NOV-1999 (TrEMBLrel. 12, Last sequence update)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
     Platelet-derived growth factor A chain (Fragment).
DE
GN
     PDGFA.
```

```
Pan troglodytes (Chimpanzee).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Pan.
OC
     NCBI TaxID=9598;
OX
RN
     [1]
     SEQUENCE FROM N.A.
RP
     MEDLINE=20065871; PubMed=10598812;
RX
     Bonthron D.T., Smith S.L., Campbell R.;
RA
     "Complex patterns of intragenic polymorphism at the PDGFA locus.";
RT
     Hum. Genet. 105:452-459(1999).
RL
     EMBL; AJ243277; CAB45926.1; -.
DR
                         1
FT
     NON TER
                  1
                         11
     NON TER
                  11
FT
                11 AA; 1331 MW; 7FB881F101E1F2D4 CRC64;
     SEQUENCE
SQ
                          18.2%; Score 2; DB 6;
                                                   Length 11;
  Query Match
                          100.0%; Pred. No. 1.2e+05;
  Best Local Similarity
                                                   0; Indels
                                                                  0;
                                                                      Gaps
                                                                              0;
             2; Conservative 0; Mismatches
  Matches
            4 SR 5
Qу
              3 SR 4
Db
RESULT 34
Q9TQS9
                                           11 AA.
                 PRELIMINARY;
                                   PRT;
     Q9TQS9
ΙD
AC
     O9TQS9;
     01-MAY-2000 (TrEMBLrel. 13, Created)
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT
     01-MAY-2000 (TrEMBLrel. 13, Last annotation update)
DT
     Transferrin (Fragment).
DE
     Equus caballus (Horse).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Perissodactyla; Equidae; Equus.
OC
OX
     NCBI TaxID=9796;
RN
RP
     SEQUENCE FROM N.A.
     Giffard J.M., Brandon R.B., Bell T.K.;
RA
     "Further identification of single nucleotide polymorphisms in the
RT
     equine transferrin gene.";
RT
     Submitted (SEP-1999) to the EMBL/GenBank/DDBJ databases.
RL
     EMBL; AF185800; AAF05495.1; -.
DR
     EMBL; AF185797; AAF05492.1; -.
DR
     EMBL; AF185798; AAF05493.1; -.
DR
     EMBL; AF185799; AAF05494.1; -.
DR
                   11
                          11
FT
     NON TER
                11 AA; 1231 MW; C586121E2DC4005D CRC64;
     SEQUENCE
SQ
                           18.2%; Score 2; DB 6; Length 11;
  Query Match
                           100.0%; Pred. No. 1.2e+05;
  Best Local Similarity
                                                                  0; Gaps
                                                    0; Indels
             2; Conservative
                               0; Mismatches
  Matches
             9 AI 10
Qу
               11
             4 AI 5
Db
```

```
RESULT 35
O9TQS0
                                   PRT;
                                           11 AA.
                 PRELIMINARY;
ID
    Q9TQS0
AC
     Q9TQS0;
     01-MAY-2000 (TrEMBLrel. 13, Created)
ידת
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT
     01-MAY-2000 (TrEMBLrel. 13, Last annotation update)
DT
     C-KIT (Fragment).
DE
GN
     KIT.
     Bos taurus (Bovine).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea;
OC
     Bovidae; Bovinae; Bos.
OC
     NCBI TaxID=9913;
OX
RN
     [1]
     SEQUENCE FROM N.A.
RP
     Olsen H.G., Vage D.I., Lien S., Klungland H.;
RA
     "A polymorphism in the bovine c-kit gene.";
RT
     Submitted (JUN-1999) to the EMBL/GenBank/DDBJ databases.
RL
     EMBL; AJ243424; CAB60775.1; -.
DR
     EMBL; AJ243060; CAB60774.1; -.
DR
                          1
     NON TER
                   1
FT
     NON TER
                         11
FT
                  11
                11 AA; 1126 MW; DD785FF8A2D2D772 CRC64;
     SEOUENCE
SQ
                          18.2%; Score 2; DB 6; Length 11;
  Query Match
                          100.0%; Pred. No. 1.2e+05;
  Best Local Similarity
                                                                               0;
                                                                  0; Gaps
             2; Conservative
                                0; Mismatches
                                                    0; Indels
           10 IK 11
Qу
              1 IK 2
Db
RESULT 36
Q9XSP8
                                            11 AA.
                 PRELIMINARY;
                                    PRT:
ID
     Q9XSP8
AC
     O9XSP8;
     01-NOV-1999 (TrEMBLrel. 12, Created)
DT
     01-NOV-1999 (TrEMBLrel. 12, Last sequence update)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
     Platelet-derived growth factor A chain (Fragment).
DE
     PDGFA.
GN
     Presbytis johnii.
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Primates; Catarrhini; Cercopithecidae; Colobinae;
OC
OC
     Presbytis.
     NCBI TaxID=98375;
OX
RN
     [1]
     SEQUENCE FROM N.A.
RP
RX
     MEDLINE=20065871; PubMed=10598812;
     Bonthron D.T., Smith S.L., Campbell R.;
RA
     "Complex patterns of intragenic polymorphism at the PDGFA locus.";
RT
     Hum. Genet. 105:452-459(1999).
RL
     EMBL; AJ243281; CAB46013.1; -.
DR
                    1
                           1
FT
     NON TER
```

```
FT
     NON TER
                  11
                          11
                11 AA; 1345 MW; 7FB881F101E1E044 CRC64;
SO
     SEOUENCE
  Query Match
                           18.2%;
                                   Score 2; DB 6; Length 11;
  Best Local Similarity
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  Matches
             2; Conservative
                                  0; Mismatches
                                                    0;
                                                                               0;
                                                       Indels
                                                                   0;
                                                                       Gaps
Qγ
            4 SR 5
              II
Db
            3 SR 4
RESULT 37
O9XSP6
ID
     Q9XSP6
                 PRELIMINARY;
                                    PRT;
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AC
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DT
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     01-NOV-1999 (TrEMBLrel. 12, Last sequence update)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
DE
     Platelet-derived growth factor A chain (Fragment).
GN
     PDGFA.
os
     Pongo pygmaeus (Orangutan).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Pongo.
OX
     NCBI TaxID=9600;
RN
     [1]
RP
     SEQUENCE FROM N.A.
RX
     MEDLINE=20065871; PubMed=10598812;
RA
     Bonthron D.T., Smith S.L., Campbell R.;
RT
     "Complex patterns of intragenic polymorphism at the PDGFA locus.";
RL
     Hum. Genet. 105:452-459(1999).
DR
     EMBL; AJ243279; CAB45925.1; -.
FT
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FT
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SQ
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  Query Match
                          18.2%;
                                   Score 2; DB 6; Length 11;
                          100.0%; Pred. No. 1.2e+05;
  Best Local Similarity
             2; Conservative
                                  0; Mismatches
                                                                  0; Gaps
                                                    0;
                                                        Indels
                                                                               0;
            4 SR 5
Qу
              11
Db
            3 SR 4
RESULT 38
Q9XSQ4
ID
     Q9XSQ4
                 PRELIMINARY;
                                    PRT;
                                            11 AA.
AC
     Q9XSQ4;
DT
     01-NOV-1999 (TrEMBLrel. 12, Created)
DT
     01-NOV-1999 (TrEMBLrel. 12, Last sequence update)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DΕ
     Platelet-derived growth factor A chain (Fragment).
GN
     PDGFA.
OS
     Gorilla gorilla (gorilla).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Gorilla.
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OX
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RP
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RX
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RT
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DR
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FT
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SQ
     SEQUENCE
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 Query Match
                          18.2%;
                                  Score 2; DB 6; Length 11;
 Best Local Similarity
                          100.0%; Pred. No. 1.2e+05;
 Matches
             2; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                      Gaps
                                                                               0;
            4 SR 5
Qу
              11
Db
            3 SR 4
RESULT 39
077900
ID
     077900
                 PRELIMINARY;
                                   PRT;
                                            11 AA.
AC
     077900;
DT
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     01-NOV-1998 (TrEMBLrel. 08, Last sequence update)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
DE
     MHC class II B locus 14 (Fragment).
     Oreochromis niloticus (Nile tilapia) (Tilapia nilotica).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
OC
     Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
OC
     Acanthomorpha; Acanthopterygii; Percomorpha; Perciformes; Labroidei;
OC
     Cichlidae; Oreochromis.
OX
     NCBI TaxID=8128;
RN
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RP
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RX
     Malaga-Trillo E., Zaleska-Rutczynska Z., McAndrew B., Vincek V.,
RA
     Figueroa F., Sultmann H., Klein J.;
RA
RT
     "Linkage relationships and haplotype polymorphism among cichlid mhc
RT
     class II B loci.";
RL
     Genetics 149:1527-1537(1998).
DR
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FT
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FT
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                         11
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SQ
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                                  Score 2; DB 7; Length 11;
 Best Local Similarity 100.0%; Pred. No. 1.2e+05;
             2; Conservative
                               0; Mismatches
                                                    0; Indels
 Matches
                                                                  0;
                                                                      Gaps
            4 SR 5
QУ
              11
Db
            8 SR 9
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RESULT 40
077917
     077917
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                                    PRT;
                                            11 AA.
ID
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     077917;
DT
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     01-NOV-1998 (TrEMBLrel. 08, Last sequence update)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
DΕ
     MHC class II B locus 14 (Fragment).
     Oreochromis niloticus (Nile tilapia) (Tilapia nilotica).
OS
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
     Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
OC
OC
     Acanthomorpha; Acanthopterygii; Percomorpha; Perciformes; Labroidei;
     Cichlidae; Oreochromis.
OC
OX
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RN
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RP
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RX
     Malaga-Trillo E., Zaleska-Rutczynska Z., McAndrew B., Vincek V.,
RA
RA
     Figueroa F., Sultmann H., Klein J.;
RT
     "Linkage relationships and haplotype polymorphism among cichlid mhc
RT
     class II B loci.";
RL
     Genetics 149:1527-1537(1998).
DR
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FT
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SQ
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  Query Match
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  Best Local Similarity
                          100.0%; Pred. No. 1.2e+05;
  Matches
             2; Conservative
                                0; Mismatches
                                                    0; Indels
                                                                0; Gaps
                                                                               0;
            4 SR 5
Qу
              \mathbf{H}
Db
            8 SR 9
RESULT 41
077902
ID
     077902
                 PRELIMINARY;
                                    PRT;
                                            11 AA.
AC
     077902;
DT.
     01-NOV-1998 (TrEMBLrel. 08, Created)
     01-NOV-1998 (TrEMBLrel. 08, Last sequence update)
DT
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DE
     MHC class II B locus 14 (Fragment).
     Oreochromis niloticus (Nile tilapia) (Tilapia nilotica).
OS
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
     Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
OC
OC
     Acanthomorpha; Acanthopterygii; Percomorpha; Perciformes; Labroidei;
OC
     Cichlidae; Oreochromis.
OX
     NCBI TaxID=8128;
RN
     [1]
RP
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RX
     MEDLINE=98315113; PubMed=9649539;
     Malaga-Trillo E., Zaleska-Rutczynska Z., McAndrew B., Vincek V.,
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RA
     Figueroa F., Sultmann H., Klein J.;
RT
     "Linkage relationships and haplotype polymorphism among cichlid mhc
RT
     class II B loci.";
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EMBL; AF050012; AAC41351.1; -.
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FT
                11 AA; 1349 MW; 81C12D8EB7341B41 CRC64;
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SO
                          18.2%; Score 2; DB 7; Length 11;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 1.2e+05;
                              0; Mismatches
                                                                     Gaps
                                                                              0;
                                                   0; Indels
                                                                 0;
 Matches
             2; Conservative
            4 SR 5
Qу
              8 SR 9
Db
RESULT 42
077921
                                           11 AA.
     077921
                 PRELIMINARY;
                                   PRT;
ID
AC
     077921;
     01-NOV-1998 (TrEMBLrel. 08, Created)
DT
     01-NOV-1998 (TrEMBLrel. 08, Last sequence update)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
     MHC class II B locus 14 (Fragment).
DΕ
     Pseudotropheus sp. 'Pseudotropheus tropheops complex'.
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
OC
     Acanthomorpha; Acanthopterygii; Percomorpha; Perciformes; Labroidei;
OC
     Cichlidae; Pseudotropheus.
OC
     NCBI TaxID=51796;
OX
RN
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RP
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     Malaga-Trillo E., Zaleska-Rutczynska Z., McAndrew B., Vincek V.,
RA
     Figueroa F., Sultmann H., Klein J.;
RA
     "Linkage relationships and haplotype polymorphism among cichlid mhc
RT
     class II B loci.";
RT
     Genetics 149:1527-1537(1998).
RL
     EMBL; AF050034; AAC41373.1; -.
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SQ
  Query Match
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  Best Local Similarity 100.0%; Pred. No. 1.2e+05;
                                                                              0;
             2; Conservative 0; Mismatches
                                                                  0; Gaps
  Matches
                                                   0; Indels
            4 SR 5
Qу
              \perp
Db
            8 SR 9
RESULT 43
077901
                                   PRT;
                                            11 AA.
ID
     077901
                 PRELIMINARY;
AC
     077901:
     01-NOV-1998 (TrEMBLrel. 08, Created)
DT
     01-NOV-1998 (TrEMBLrel. 08, Last sequence update)
DT
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Genetics 149:1527-1537(1998).

RL

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01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
    MHC class II B locus 14 (Fragment).
DE
     Oreochromis niloticus (Nile tilapia) (Tilapia nilotica).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
OC
    Acanthomorpha; Acanthopteryqii; Percomorpha; Perciformes; Labroidei;
OC
     Cichlidae; Oreochromis.
OC
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OX
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    Malaga-Trillo E., Zaleska-Rutczynska Z., McAndrew B., Vincek V.,
RA
     Figueroa F., Sultmann H., Klein J.;
RA
     "Linkage relationships and haplotype polymorphism among cichlid mhc
RT
RТ
     class II B loci.";
RL
    Genetics 149:1527-1537(1998).
    EMBL; AF050011; AAC41350.1; -.
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FT
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                  11
                         11
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SQ
                          18.2%; Score 2; DB 7; Length 11;
  Query Match
                          100.0%; Pred. No. 1.2e+05;
  Best Local Similarity
                                 0; Mismatches
                                                    0; Indels
                                                                      Gaps
                                                                              0;
             2; Conservative
            4 SR 5
Qy
              11
Db
            8 SR 9
RESULT 44
077916
ID
    077916
                 PRELIMINARY;
                                   PRT;
                                           .11 AA.
AC
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     01-NOV-1998 (TrEMBLrel. 08, Created)
DT
     01-NOV-1998 (TrEMBLrel. 08, Last sequence update)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
DE
    MHC class II B locus 14 (Fragment).
    Oreochromis niloticus (Nile tilapia) (Tilapia nilotica).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
OC
     Acanthomorpha; Acanthopterygii; Percomorpha; Perciformes; Labroidei;
OC
OC
     Cichlidae; Oreochromis.
OX
     NCBI TaxID=8128;
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     [1]
RP
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RX
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    Malaga-Trillo E., Zaleska-Rutczynska Z., McAndrew B., Vincek V.,
RA
     Figueroa F., Sultmann H., Klein J.;
RA
     "Linkage relationships and haplotype polymorphism among cichlid mhc
RТ
RT
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RL
DR
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FT
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SQ
     SEQUENCE
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18.2%; Score 2; DB 7; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 1.2e+05;
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            2; Conservative 0; Mismatches
                                                   0; Indels
            4 SR 5
Qу
              II
            8 SR 9
Db
RESULT 45
077905
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                 PRELIMINARY;
                                   PRT:
     077905
ID
     077905;
AC
     01-NOV-1998 (TrEMBLrel. 08, Created)
DT
     01-NOV-1998 (TrEMBLrel. 08, Last sequence update)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
     MHC class II B locus 14 (Fragment).
DΕ
     Oreochromis niloticus (Nile tilapia) (Tilapia nilotica).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
OC
     Acanthomorpha; Acanthopterygii; Percomorpha; Perciformes; Labroidei;
OC
     Cichlidae; Oreochromis.
oc
     NCBI TaxID=8128;
ΟX
RN
     [1]
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RP
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RX
     Malaga-Trillo E., Zaleska-Rutczynska Z., McAndrew B., Vincek V.,
RA
     Figueroa F., Sultmann H., Klein J.;
RA
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RT
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RT
     Genetics 149:1527-1537(1998).
RL
     EMBL; AF050015; AAC41354.1; -.
DR
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FT
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FT
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                11 AA; 1349 MW; 81C12D8EB7341B41 CRC64;
SO
     SEQUENCE
                          18.2%; Score 2; DB 7; Length 11;
  Query Match
                          100.0%; Pred. No. 1.2e+05;
  Best Local Similarity
                                                                  0; Gaps
                                                                              0;
                                                       Indels
                                0; Mismatches
                                                    0;
  Matches
             2; Conservative
            4 SR 5
Qу
              11
            8 SR 9
Db
RESULT 46
077899
                                            11 AA.
                 PRELIMINARY;
                                    PRT;
     077899
ID
     077899;
AC
     01-NOV-1998 (TrEMBLrel. 08, Created)
DT
     01-NOV-1998 (TrEMBLrel. 08, Last sequence update)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
     MHC class II B locus 14 (Fragment).
DE
     Oreochromis niloticus (Nile tilapia) (Tilapia nilotica).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
OC
     Acanthomorpha; Acanthopterygii; Percomorpha; Perciformes; Labroidei;
OC
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Cichlidae; Oreochromis.
OC
    NCBI_TaxID=8128;
OX
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RP
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RX
    Malaga-Trillo E., Zaleska-Rutczynska Z., McAndrew B., Vincek V.,
RA
     Figueroa F., Sultmann H., Klein J.;
RA
     "Linkage relationships and haplotype polymorphism among cichlid mhc
RT
     class II B loci.";
RT
     Genetics 149:1527-1537(1998).
RL
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DR
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     NON TER
                  1.1
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FT
                11 AA; 1349 MW; 81C12D8EB7341B41 CRC64;
     SEQUENCE
SQ
                          18.2%; Score 2; DB 7; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 1.2e+05;
                              0; Mismatches 0;
                                                      Indels
                                                                 0; Gaps
                                                                              0;
            2; Conservative
  Matches
            4 SR 5
Qy
              11
            8 SR 9
Db
RESULT 47
078121
                                   PRT;
                                           11 AA.
                 PRELIMINARY;
ID
     078121
AC
     078121;
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DT
     01-NOV-1998 (TrEMBLrel. 08, Last sequence update)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
     MHC class II B locus 12 (Fragment).
DE
     Oreochromis niloticus (Nile tilapia) (Tilapia nilotica).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
OC
     Acanthomorpha; Acanthopterygii; Percomorpha; Perciformes; Labroidei;
OC
     Cichlidae; Oreochromis.
OC
OX
     NCBI TaxID=8128;
RN
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RP
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RX
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RA
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RA
     "Linkage relationships and haplotype polymorphism among cichlid mhc
RT
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RT
     Genetics 149:1527-1537(1998).
RL
     EMBL; AF050027; AAC41366.1; -.
DR
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FT
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                         11
FT
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SO
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  Query Match
                          100.0%; Pred. No. 1.2e+05;
  Best Local Similarity
             2; Conservative 0; Mismatches 0; Indels
                                                                  0; Gaps
                                                                              0;
  Matches
             4 SR 5
Qу
               11
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RESULT 48
077904
                                           11 AA.
                 PRELIMINARY;
                                   PRT;
ID
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AC
     077904;
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DT
     01-NOV-1998 (TrEMBLrel. 08, Last sequence update)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
     MHC class II B locus 14 (Fragment).
DE
     Oreochromis niloticus (Nile tilapia) (Tilapia nilotica).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
OC
     Acanthomorpha; Acanthopterygii; Percomorpha; Perciformes; Labroidei;
OC
     Cichlidae; Oreochromis.
OC
     NCBI TaxID=8128;
OX
RN
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RX
     Malaga-Trillo E., Zaleska-Rutczynska Z., McAndrew B., Vincek V.,
RA
     Figueroa F., Sultmann H., Klein J.;
RA
     "Linkage relationships and haplotype polymorphism among cichlid mhc
RT
     class II B loci.";
RT
     Genetics 149:1527-1537(1998).
RL
     EMBL; AF050014; AAC41353.1; -.
DR
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FT
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                  11
     NON TER
FT
                11 AA; 1349 MW; 81C12D8EB7341B41 CRC64;
     SEQUENCE
SO
                          18.2%; Score 2; DB 7; Length 11;
  Query Match
                          100.0%; Pred. No. 1.2e+05;
  Best Local Similarity
                                                                               0;
             2; Conservative 0; Mismatches
                                                                  0; Gaps
                                                    0;
                                                       Indels
  Matches
            4 SR 5
Qγ
              11
            8 SR 9
Db
RESULT 49
077903
                                    PRT:
                                            11 AA.
     077903
                 PRELIMINARY;
ID
     077903;
AC
     01-NOV-1998 (TrEMBLrel. 08, Created)
DT
     01-NOV-1998 (TrEMBLrel. 08, Last sequence update)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
     MHC class II B locus 14 (Fragment).
DE
     Oreochromis niloticus (Nile tilapia) (Tilapia nilotica).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
OC
     Acanthomorpha; Acanthopterygii; Percomorpha; Perciformes; Labroidei;
OC
     Cichlidae; Oreochromis.
OC
OX
     NCBI TaxID=8128;
RN
     [1]
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RP
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RX
     Malaga-Trillo E., Zaleska-Rutczynska Z., McAndrew B., Vincek V.,
RA
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Figueroa F., Sultmann H., Klein J.;
RA
     "Linkage relationships and haplotype polymorphism among cichlid mhc
RT
     class II B loci.";
RT
     Genetics 149:1527-1537(1998).
RL
     EMBL; AF050013; AAC41352.1; -.
DR
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FT
     NON TER
                   1
     NON TER
                         11
FT
                  11
                11 AA; 1349 MW; 81C12D8EB7341B41 CRC64;
     SEQUENCE
SO
                          18.2%; Score 2; DB 7; Length 11;
  Query Match
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            4 SR 5
Qy
              11
            8 SR 9
Db
RESULT 50
094V94
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ID
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     01-DEC-2001 (TrEMBLrel. 19, Created)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DΤ
     Cytochrome c oxidase subunit I (Fragment).
DE
     COI.
GN
     Varanus storri.
OS
     Mitochondrion.
OG
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Lepidosauria; Squamata; Scleroglossa; Anguimorpha; Varanidae; Varanus.
OC
     NCBI TaxID=169855;
OX
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RP
     SEQUENCE FROM N.A.
     Ast J.C.;
RA
     "Mitochondrial DNA evidence and evolution in Varanoidea (Squamata).";
RT
     Cladistics 17:0-0(2001).
RL
     EMBL; AF407531; AAL10145.1; -.
DR
     GO; GO:0005739; C:mitochondrion; IEA.
DR
     Mitochondrion.
KW
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FT
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                                                        Indels
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Qy
               11
             1 MT 2
Db
RESULT 51
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ID
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AC
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01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DΨ
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Ribulose-1,5-bisphosphate carboxylase/oxygenase large subunit
DE
DE
     (Fragment).
GN
     RBCL.
     Porphyra carolinensis.
OS
OG
     Chloroplast.
     Eukaryota; Rhodophyta; Bangiophyceae; Bangiales; Bangiaceae; Porphyra.
OC
OX
     NCBI TaxID=76158;
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RN
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RC
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     Teasdale B.W., West A., Taylor H., Klein A.S.;
RA
     "A Simple Restriction Fragment Length Polymorphism (RFLP) Assay To
RT
     Discriminate Common Porphyra (Rhodophyta) Taxa From The Northwest
RT
RT
     Atlantic.";
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RL
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DR
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                                                                   0; Gaps
            2; Conservative
                                0; Mismatches
  Matches
            8 TA 9
Qγ
              -11
            8 TA 9
Db
RESULT 52
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TT
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DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Cytochrome c oxidase subunit I (Fragment).
DΕ
GN
     COI.
     Laudakia tuberculata.
OS
     Mitochondrion.
OG
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Lepidosauria; Squamata; Iguania; Acrodonta; Agamidae; Agaminae;
OC
OC
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     NCBI TaxID=118215;
OX
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     Macey J.R., Schulte J.A. II, Larson A.;
RA
     "Evolution and information content of the mitochondrial genomic
RT
     structural features illustrated with acrodont lizards.";
RT
     Syst. Biol. 49:257-277(2000).
RL
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RN
RP
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RX
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Macey J.R., Schulte J.A. II, Larson A., Ananjeva N.B., Wang Y.,
RA
     Pethiyagoda R., Rastegar-Pouyani N., Papenfuss T.J.;
RA
     "Evaluating Trans-Tethys migration: An example using Acrodont lizard
RT
     phylogenetics.";
RT
     Syst. Biol. 49:233-256(2000).
RL
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DR
KW
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FT
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SQ
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  Query Match
                          100.0%; Pred. No. 1.2e+05;
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                                 0; Mismatches
                                                    0;
                                                       Indels
                                                                  0:
             2; Conservative
            7 MT 8
Qу
              11
            4 MT 5
Db
RESULT 53
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                                            11 AA.
                 PRELIMINARY;
                                    PRT;
ΙD
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AC
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     01-MAR-2001 (TrEMBLrel. 16, Created)
DT
     01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Cytochrome c oxidase subunit I (Fragment).
DE
GN
     COI.
     Salea horsfieldii.
OS
     Mitochondrion.
OG
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Lepidosauria; Squamata; Iguania; Acrodonta; Agamidae; Draconinae;
OC
OC
     Salea.
OX
     NCBI TaxID=118233;
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RP
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RA
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RT
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RT
     Syst. Biol. 49:257-277(2000).
RL
RN
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RA
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RA
     "Evaluating Trans-Tethys migration: An example using Acrodont lizard
RT
     phylogenetics.";
RT
     Syst. Biol. 49:233-256(2000).
RL
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DR
KW
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  Query Match
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            1 AR 2
              11
Db
            5 AR 6
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AC
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     01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Cytochrome c oxidase subunit I (Fragment).
DΕ
GN
     COI.
     Varanus gouldii (Gould's monitor).
OS
     Mitochondrion.
OG
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Lepidosauria; Squamata; Scleroglossa; Anguimorpha; Varanidae; Varanus.
OC
OX
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RP
     Ast J.C.;
RA
     "Mitochondrial DNA evidence and evolution in Varanoidea (Squamata).";
RT
RL
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DR
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KW
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     NON TER
FT
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                         11
SQ
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                                                                  0; Gaps
                                                                              0;
            7 MT 8
Qy
              -11
Db
            1 MT 2
RESULT 55
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     Q9G5Y6
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                                   PRT;
ΤD
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AC
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     01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
DT
DT
     01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE
     Cytochrome c oxidase subunit I (Fragment).
GN
     COI.
OS
    Agama agama (Red-headed rock agama).
OG
    Mitochondrion.
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Lepidosauria; Squamata; Iguania; Acrodonta; Agamidae; Agaminae; Agama.
OX
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RN
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RA
     "Evolution and information content of the mitochondrial genomic
RT
     structural features illustrated with acrodont lizards.";
RT
     Syst. Biol. 49:257-277(2000).
RL
RN
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RΡ
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RA
     Pethiyagoda R., Rastegar-Pouyani N., Papenfuss T.J.;
RA
     "Evaluating Trans-Tethys migration: An example using Acrodont lizard
RT
     phylogenetics.";
RT
     Syst. Biol. 49:233-256(2000).
RL
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DR
     GO; GO:0005739; C:mitochondrion; IEA.
DR
KW
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                  11
                          11
FT
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SO
     SEQUENCE
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                           18.2%;
  Query Match
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  Best Local Similarity
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                                                                               0;
             2; Conservative
                                  0; Mismatches
                                                    0;
  Matches
            7 MT 8
Qу
              11
            1 MT 2
Db
RESULT 56
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                                             11 AA.
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ID
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AC
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     01-OCT-2002 (TrEMBLrel. 22, Created)
DТ
     01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Ribosomal protein 16 (Fragment).
DE
     RPL16.
GN
     Sida hookeriana.
OS
     Chloroplast.
OG
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC
     Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids;
OC
     eurosids II; Malvales; Malvaceae; Malvoideae; Sida.
OC
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OX
RN
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RP
      Pfeil B.E., Brubaker C.L., Craven L.A., Crisp M.D.;
RA
      "Phylogeny of Hibiscus and the tribe Hibisceae (Malvaceae) using
RT
      chloroplast DNA sequences of ndhF and the rpl16 intron.";
RT
      Syst. Bot. 27:333-350(2002).
RL
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KW
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      NON TER
      NON TER
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 \mathbf{FT}
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18.2%; Score 2; DB 8; Length 11;
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  Best Local Similarity
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                                                                  0; Gaps
                                                   0; Indels
             2; Conservative
                                0; Mismatches
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            2 RK 3
QУ
              11
            6 RK 7
Db
RESULT 57
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                 PRELIMINARY;
ID
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AC
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DT
     01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Cytochrome c oxidase subunit I (Fragment).
DE
GN
     COI.
     Pseudotrapelus sinaitus.
OS
OG
     Mitochondrion.
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Lepidosauria; Squamata; Iguania; Acrodonta; Agamidae; Agaminae;
OC
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     NCBI TaxID=118229;
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     Macey J.R., Schulte J.A. II, Larson A.;
RA
     "Evolution and information content of the mitochondrial genomic
RT
     structural features illustrated with acrodont lizards.";
RT
     Syst. Biol. 49:257-277(2000).
RL
RN
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RP
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     Macey J.R., Schulte J.A. II, Larson A., Ananjeva N.B., Wang Y.,
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     Pethiyagoda R., Rastegar-Pouyani N., Papenfuss T.J.;
RA
     "Evaluating Trans-Tethys migration: An example using Acrodont lizard
RT
     phylogenetics.";
RT
     Syst. Biol. 49:233-256(2000).
RL
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KW
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              2; Conservative
                                                    0; Indels
  Matches
             4 SR 5
Qу
               11
             5 SR 6
Db
RESULT 58
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                                    PRT;
ID
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                  PRELIMINARY;
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DТ
     01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
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DE
GN
     COI.
OS
     Laudakia nupta.
OG
    Mitochondrion.
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Lepidosauria; Squamata; Iguania; Acrodonta; Agamidae; Agaminae;
OC
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     Laudakia.
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RT
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RT
     Syst. Biol. 49:257-277(2000).
RL
RN
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RA
     "Evaluating Trans-Tethys migration: An example using Acrodont lizard
RT
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RT
     Syst. Biol. 49:233-256(2000).
RL
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             2; Conservative
                               0; Mismatches 0;
                                                       Indels
  Matches
            7 MT 8
Qy
              4 MT 5
Db
RESULT 59
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                                    PRT;
                                            11 AA.
     Q9G607
ID
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AC
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DT
     01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Cytochrome c oxidase subunit I (Fragment).
DΕ
GN
     COI.
     Aphaniotis fusca.
OS
OG
     Mitochondrion.
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Lepidosauria; Squamata; Iguania; Acrodonta; Agamidae; Draconinae;
OC
OC
     Aphaniotis.
OX
     NCBI TaxID=89036;
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     structural features illustrated with acrodont lizards.";
RT
     Syst. Biol. 49:257-277(2000).
RL
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     [2]
RP
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RA
     "Evaluating Trans-Tethys migration: An example using Acrodont lizard
RT
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RT
     Syst. Biol. 49:233-256(2000).
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             2; Conservative
  Matches
            7 MT 8
Qy
              -11
            4 MT 5
Db
RESULT 60
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ID
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AC
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DT
     01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
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DE
GN
     COI.
     Heloderma suspectum (Gila monster).
OS
OG
     Mitochondrion.
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Lepidosauria; Squamata; Scleroglossa; Anguimorpha; Helodermatidae;
OC
     Heloderma.
OC
     NCBI TaxID=8554;
OX
RN
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     SEQUENCE FROM N.A.
RP
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RA
     "Mitochondrial DNA evidence and evolution in Varanoidea (Squamata).";
RT
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RL
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DR
KW
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FT
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             2; Conservative
  Matches
            7 MT 8
Qу
              11
Dh
            1 MT 2
RESULT 61
079985
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     079985
AC
     079985;
     01-NOV-1998 (TrEMBLrel. 08, Created)
ידת
     01-NOV-1998 (TrEMBLrel. 08, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DΤ
     Cytochrome C oxidase subunit I (Fragment).
DE
GN
     COI.
     Laudakia caucasia.
OS
OG
     Mitochondrion.
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Lepidosauria; Squamata; Iguania; Acrodonta; Agamidae; Agaminae;
OC
     Laudakia.
OC
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OX
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RA
     Rastegar-Pouyani N., Shammakov S.M., Papenfuss T.J.;
RA
     "Phylogenetic relationships among Agamid lizards of the Laudakia
RT
     caucasia species group: testing hypotheses of biogeographic
RT
     fragmentation and an area cladogram for the Iranian Plateau.";
RT
     Mol. Phylogenet. Evol. 10:118-131(1998).
RL
RN
RP
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RA
     Papenfuss T.J.;
     "Testing hypotheses of vicariance in the agamid lizard laudakia
RT
     caucasia from mountain ranges on the northern iranian plateau.";
RT
     Mol. Phylogenet. Evol. 14:479-483(2000).
RL
     EMBL; AF028687; AAC99614.1; -.
DR
     EMBL; AF028681; AAC99596.1; -
DR
     EMBL; AF028682; AAC99599.1; -.
DR
     EMBL; AF028683; AAC99602.1; -.
DR
     EMBL; AF028684; AAC99605.1; -.
DR
     EMBL; AF028685; AAC99608.1; -.
DR
     EMBL; AF028686; AAC99611.1; -.
DR
     EMBL; AF172705; AAF65208.1; -.
DR
     EMBL; AF172704; AAF65205.1; -.
DR
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DR
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DR
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KW
FT
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SQ
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                          100.0%; Pred. No. 1.2e+05;
  Best Local Similarity
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                                 0; Mismatches
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            7 MT 8
Qy
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Dh
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AC
     01-MAR-2001 (TrEMBLrel. 16, Created)
DT
     01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Cytochrome c oxidase subunit I (Fragment).
DΕ
GN
OS
     Japalura flaviceps.
     Mitochondrion.
OG
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Lepidosauria; Squamata; Iguania; Acrodonta; Agamidae; Draconinae;
OC
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     NCBI TaxID=52218;
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RP
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     MEDLINE=97153820; PubMed=9000751;
RX
     Macey J.R., Larson A., Ananjeva N.B., Papenfuss T.J.;
RA
     "Replication slippage may cause parallel evolution in the secondary
RT
     structures of mitochondrial transfer RNAs.";
RT
     Mol. Biol. Evol. 14:30-39(1997).
RL
RN
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RP
     MEDLINE=22114082; PubMed=12118408;
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     Macey J.R., Schulte J.A. II, Larson A.;
RA
     "Evolution and information content of the mitochondrial genomic
RT
     structural features illustrated with acrodont lizards.";
RT
     Syst. Biol. 49:257-277(2000).
RL
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RA
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RA
     "Evaluating Trans-Tethys migration: An example using Acrodont lizard
RT
     phylogenetics.";
RT
     Syst. Biol. 49:233-256(2000).
RL
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     01-OCT-2002 (TrEMBLrel. 22, Created)
DT
     01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Ribosomal protein 16 (Fragment).
DΕ
GN
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OS
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OG
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     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC
     Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids;
OC
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OC
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RP
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     Pfeil B.E., Brubaker C.L., Craven L.A., Crisp M.D.;
RA
     "Phylogeny of Hibiscus and the tribe Hibisceae (Malvaceae) using
RT
     chloroplast DNA sequences of ndhF and the rpl16 intron.";
RT
     Syst. Bot. 27:333-350(2002).
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FT
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Qу
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DΤ
     01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
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DE
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OS
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OG
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OC
     Lepidosauria; Squamata; Iguania; Acrodonta; Agamidae; Draconinae;
OC
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RX
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Macey J.R., Schulte J.A. II, Larson A.;
RA
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RТ
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RT
     Syst. Biol. 49:257-277(2000).
RL
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RA
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RA
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RT
     phylogenetics.";
RT
     Syst. Biol. 49:233-256(2000).
RL
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DR
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                                                        Indels
             2; Conservative
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Qу
              \mathbf{I}
            5 AR 6
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ID
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AC
     Q9G643;
     01-MAR-2001 (TrEMBLrel. 16, Created)
DT
     01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Cytochrome c oxidase subunit I (Fragment).
DE
GN
     COI.
     Calotes calotes.
OS
OG
     Mitochondrion.
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Lepidosauria; Squamata; Iguania; Acrodonta; Agamidae; Draconinae;
OC
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     Calotes.
     NCBI_TaxID=118093;
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RA
     "Evolution and information content of the mitochondrial genomic
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     structural features illustrated with acrodont lizards.";
RT
     Syst. Biol. 49:257-277(2000).
RL
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     [2]
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     Pethivagoda R., Rastegar-Pouyani N., Papenfuss T.J.;
RA
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RT
     phylogenetics.";
RT
     Syst. Biol. 49:233-256(2000).
RL
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EMBL; AF128482; AAG00683.1; -.
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KW
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  Query Match
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            7 MT 8
Qy
              4 MT 5
Db
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                                   PRT;
ID
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AC
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     01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
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DE
GN
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OS
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OG
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OC
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OC
OC
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     NCBI TaxID=52210;
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RP
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RX
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RA
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RT
     structural features illustrated with acrodont lizards.";
RT
     Syst. Biol. 49:257-277(2000).
RL
RN
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RP
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     Pethiyagoda R., Rastegar-Pouyani N., Papenfuss T.J.;
RA
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RT
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RT
     Syst. Biol. 49:233-256(2000).
RL
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FT
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SQ
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  Best Local Similarity
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  Matches
Qу
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RESULT 67
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ID
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     01-DEC-2001 (TrEMBLrel. 19, Created)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
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DΕ
GN
     COI.
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OS
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OG
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OC
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OC
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OX
RN
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RP
     SEQUENCE FROM N.A.
     Ast J.C.:
RA
     "Mitochondrial DNA evidence and evolution in Varanoidea (Squamata).";
RT
     Cladistics 17:0-0(2001).
RL
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DR
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DR
ΚW
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FT
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                          11
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SO
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  Query Match
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  Best Local Similarity
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                                                       Indels
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                                                                               0;
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  Matches
             2; Conservative
            7 MT 8
Qу
              11
            1 MT 2
Db
RESULT 68
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                                            11 AA.
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ΙD
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AC
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     01-OCT-2002 (TrEMBLrel. 22, Created)
DT
     01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Ribosomal protein 16 (Fragment).
DE
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GN
     Abelmoschus manihot.
OS
     Chloroplast.
OG
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC
     Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids;
OC
     eurosids II; Malvales; Malvaceae; Malvoideae; Abelmoschus.
OC
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     Pfeil B.E., Brubaker C.L., Craven L.A., Crisp M.D.;
RA
     "Phylogeny of Hibiscus and the tribe Hibisceae (Malvaceae) using
RT
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chloroplast DNA sequences of ndhF and the rpl16 intron.";
RT
     Syst. Bot. 27:333-350(2002).
RL
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DR
     GO; GO:0009507; C:chloroplast; IEA.
DR
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              II
            6 RK 7
Db
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ID
AC
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DT
     01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DΤ
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DE
     RPS16.
GN
     Elaeis guineensis var. tenera (Oil palm).
OS
OG
     Chloroplast.
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC
     Spermatophyta; Magnoliophyta; Liliopsida; Arecaceae; Arecoideae;
OC
     Cocoeae; Elaeidinae; Elaeis.
OC
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OX
RN
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RP
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RC
     Asmussen C.B., Chase M.W.;
RA
     "Coding and noncoding plastid DNA in palm systematics.";
RT
     Submitted (JUL-2000) to the EMBL/GenBank/DDBJ databases.
RL
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                                   Score 2; DB 8;
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RESULT 70 Q9G350

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DT
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     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
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DE
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OS
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OG
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     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
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OC
OC
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     NCBI TaxID=52204;
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     Macey J.R., Larson A., Ananjeva N.B., Papenfuss T.J.;
RA
     "Replication slippage may cause parallel evolution in the secondary
RT
     structures of mitochondrial transfer RNAs.";
RT
     Mol. Biol. Evol. 14:30-39(1997).
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RA
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RT
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RT
     Syst. Biol. 49:257-277(2000).
RL
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RA
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RA
     "Evaluating Trans-Tethys migration: An example using Acrodont lizard
RT
RT
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     Syst. Biol. 49:233-256(2000).
RL
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                                                     0; Indels
                                                                   0; Gaps
  Matches
            7 MT 8
Qу
               \mathbf{I}
            4 MT 5
Db
RESULT 71
Q8WD17
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                                             11 AA.
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AC
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DT
     01-MAR-2002 (TrEMBLrel. 20, Last sequence update)
DT
     01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DT
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11 AA.

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Cytochrome c oxidase subunit I (Fragment).
GN
     Ctenophorus reticulatus (Western netted dragon):
OS
OG
    Mitochondrion.
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Lepidosauria; Squamata; Iguania; Acrodonta; Agamidae; Amphibolurinae;
OC
OC
     Ctenophorus.
     NCBI TaxID=180002;
OX
RN
     [1]
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RP
     Melville J., Schulte J.A. II, Larson A.;
RA
     "A molecular phylogenetic study of ecological diversification in the
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RT
     Submitted (MAY-2001) to the EMBL/GenBank/DDBJ databases.
RL
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Qу
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            5 SR 6
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DT
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DE
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os
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OG
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OC
     Lepidosauria; Squamata; Iguania; Acrodonta; Agamidae; Draconinae;
OC
OC
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RT
     structural features illustrated with acrodont lizards.";
RT
     Syst. Biol. 49:257-277(2000).
RL
RN
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RA
     Pethiyagoda R., Rastegar-Pouyani N., Papenfuss T.J.;
RA
     "Evaluating Trans-Tethys migration: An example using Acrodont lizard
RT
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phylogenetics.";
RT
     Syst. Biol. 49:233-256(2000).
RL
     EMBL; AF128499; AAG00734.1; -.
DR
    GO; GO:0005739; C:mitochondrion; IEA.
DR
KW
    Mitochondrion.
FT
    NON TER
                  11
                         11
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     SEQUENCE
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SO
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            1 AR 2
Qу
              \mathbf{I}
            5 AR 6
Db
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Q9G368
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                                    PRT:
                 PRELIMINARY;
ID
     Q9G368
AC
     Q9G368;
     01-MAR-2001 (TrEMBLrel. 16, Created)
DT
     01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Cytochrome c oxidase subunit I (Fragment).
DE
GN
     COI.
     Draco blanfordii.
OS
     Mitochondrion.
OG
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Lepidosauria; Squamata; Iguania; Acrodonta; Agamidae; Draconinae;
OC
OC
     Draco.
     NCBI TaxID=89021;
OX
RN
     [1]
RP
     SEQUENCE FROM N.A.
     MEDLINE=97153820; PubMed=9000751;
RX
     Macey J.R., Larson A., Ananjeva N.B., Papenfuss T.J.;
RA
     "Replication slippage may cause parallel evolution in the secondary
RT
     structures of mitochondrial transfer RNAs.";
RT
     Mol. Biol. Evol. 14:30-39(1997).
RL
RN
     [2]
RP
     SEQUENCE FROM N.A.
     MEDLINE=22114082; PubMed=12118408;
RX
     Macey J.R., Schulte J.A. II, Larson A.;
RA
     "Evolution and information content of the mitochondrial genomic
RT
     structural features illustrated with acrodont lizards.";
RT
     Syst. Biol. 49:257-277(2000).
RL
RN
     [3]
     SEQUENCE FROM N.A.
RP
     MEDLINE=22114081; PubMed=12118407;
RX
     Macey J.R., Schulte J.A. II, Larson A., Ananjeva N.B., Wang Y.,
RA
     Pethiyagoda R., Rastegar-Pouyani N., Papenfuss T.J.;
RA
     "Evaluating Trans-Tethys migration: An example using Acrodont lizard
RT
     phylogenetics.";
RT
     Syst. Biol. 49:233-256(2000).
RL
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DR
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DR
KW
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Qу
              41
            5 SR 6
Db
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                 PRELIMINARY;
ΙD
     Q9G5W8
AC
     Q9G5W8;
     01-MAR-2001 (TrEMBLrel. 16, Created)
DT
     01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Cytochrome c oxidase subunit I (Fragment).
DE
GN
     COI.
     Trapelus savignyi.
OS
OG
     Mitochondrion.
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Lepidosauria; Squamata; Iguania; Acrodonta; Agamidae; Agaminae;
OC
OC
     Trapelus.
     NCBI TaxID=118240;
OX
RN
     SEQUENCE FROM N.A.
RP
     MEDLINE=22114082; PubMed=12118408;
RX
     Macey J.R., Schulte J.A. II, Larson A.;
RA
     "Evolution and information content of the mitochondrial genomic
RT
     structural features illustrated with acrodont lizards.";
RT
RL
     Syst. Biol. 49:257-277(2000).
RN
     [2]
     SEQUENCE FROM N.A.
RP
     MEDLINE=22114081; PubMed=12118407;
RX
     Macey J.R., Schulte J.A. II, Larson A., Ananjeva N.B., Wang Y.,
RA
     Pethiyagoda R., Rastegar-Pouyani N., Papenfuss T.J.;
RA
     "Evaluating Trans-Tethys migration: An example using Acrodont lizard
RT
     phylogenetics.";
RT
     Syst. Biol. 49:233-256(2000).
RL
     EMBL; AF128512; AAG00773.1; -.
DR
     GO; GO:0005739; C:mitochondrion; IEA.
DR
KW
     Mitochondrion.
     NON TER
                  11
                         11
FT
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Qy
              11
            4 MT 5
Db
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FT

NON TER

11

11

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RESULT 75
O8MEP0
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                                           11 AA.
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ID
AC
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     01-OCT-2002 (TrEMBLrel. 22, Created)
DT
     01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Ribosomal protein 16 (Fragment).
DE
GN
     RPL16.
OS
     Hibiscus peralbus.
     Chloroplast.
OG
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC
     Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids;
OC
     eurosids II; Malvales; Malvaceae; Malvoideae; Hibiscus.
OC
     NCBI TaxID=183256;
OX
RN
     [1]
     SEQUENCE FROM N.A.
RP
     Pfeil B.E., Brubaker C.L., Craven L.A., Crisp M.D.;
RA
     "Phylogeny of Hibiscus and the tribe Hibisceae (Malvaceae) using
RT
     chloroplast DNA sequences of ndhF and the rpl16 intron.";
RT
     Syst. Bot. 27:333-350(2002).
RL
     EMBL; AF384598; AAM50370.1; -.
DR
     GO; GO:0009507; C:chloroplast; IEA.
DR
KW
     Chloroplast.
                          1
FT
     NON_TER
                   1
     NON TER
                  11
                         11
FT
                                 7227C351D32409D4 CRC64;
                11 AA; 1470 MW;
     SEQUENCE
SQ
                          18.2%; Score 2; DB 8; Length 11;
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                          100.0%; Pred. No. 1.2e+05;
  Best Local Similarity
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                                                                              0;
                              0; Mismatches
  Matches
            2; Conservative
            2 RK 3
Qу
              \perp
            6 RK 7
Db
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Search completed: April 8, 2004, 15:46:11
Job time: 28.7692 secs

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OM protein - protein search, using sw model

Run on: April 8, 2004, 15:30:07; Search time 5.15385 Seconds

(without alignments)

111.135 Million cell updates/sec

Title: US-09-787-443A-22

Perfect score: 11

Sequence: 1 ARKSRDMTAIK 11

Scoring table: OLIGO

Gapop 60.0 , Gapext 60.0

Searched: 141681 seqs, 52070155 residues

Word size:

Total number of hits satisfying chosen parameters: 70

Minimum DB seq length: 11 Maximum DB seq length: 11

Post-processing: Listing first 100 summaries

Database: SwissProt 42:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	 3	27.3	11	1	UXB2 YEAST	P99013 saccharomyc
. 2	2	18.2	11	1	BRK MEGFL	P12797 megascolia
3	2	18.2	11	1	CORZ PERAM	P11496 periplaneta
4	2	18.2	11	1	CSI5 BACSU	P81095 bacillus su
5	2	18.2	11	1	ES1 RAT	P56571 rattus norv
6	2	18.2	11	1	NUHM CANFA	P49820 canis famil
7	2	18.2	11	1	NXSN PSETE	P59072 pseudonaja
8	2	18.2	11	1	PQQC PSEFL	P55173 pseudomonas
9	2	18.2	11	1	Q2OA COMTE	P80464 comamonas t
10	2	18.2	11	1	RR2 CONAM	P42341 conopholis
11	2	18.2	11	1	$RS3\overline{0}$ ONCMY	P83328 oncorhynchu
12	2	18.2	11	1	TIN4 HOPTI	P82654 hoplobatrac
13	1	9.1	11	1	ANGT CRIGE	P09037 crinia geor
14	1	9.1	11	1	ASL1 BACSE	P83146 bacteroides
15	1	9.1	$1\cdot 1$	1	ASL2 BACSE	P83147 bacteroides
16	1	9.1	11	1	BPP3 BOTIN	P30423 bothrops in
17	1	9.1	11	1	BPP4_BOTIN	P30424 bothrops in

18	1	9.1	11	1	BPPB_AGKHA		agkistrodon
19	1	9.1	11	1	BPP_AGKHP	P04562	agkistrodon
20	1	9.1	11	1	CA21 LITCI	P82087	litoria cit
21	1	9.1	11	1	CA22 LITCI	P82088	litoria cit
22	1	9.1	11	1	CA31 LITCI	P82089	litoria cit
23	1	9.1	11	1	CA32 LITCI	P82090	litoria cit
24	1	9.1	11	1	CA41 LITCI	P82091	litoria cit
25	1	9.1	11	1	CA42 LITCI		litoria cit
26	1	9.1	11	1	CEP1 ACHFU		achatina fu
27	1	9.1	11	1	COXA CANFA		canis famil
28	1	9.1	11	1	CX5A CONAL		conus aulic
29	1	9.1	11	1	CX5B CONAL		conus aulic
30	1	9.1	11	1	CXL1 CONMR		conus marmo
31	1		11	1			
		9.1			EFG_CLOPA		clostridium
32	1	9.1	11	1	FAR6_PENMO		penaeus mon
33	1	9.1	11	1	FAR9_CALVO		calliphora
34	1	9.1	11	1	HS70_PINPS		pinus pinas
35	1	9.1	11	1	LADD_ONCMY		oncorhynchu
36	1	9.1	11	1	LPW_THETH		thermus the
37	1	9.1	11	1	LSK1_LEUMA		leucophaea
38	1	9.1	11	1	LSKP_PERAM	P36885	periplaneta
39	1	9.1	11	1	MHBI_KLEPN		klebsiella
40	1	9.1	11	1 .	MLG_THETS	P41989	theromyzon
41	1	9.1	11	1	MORN HUMAN	P01163	homo sapien
42	1	9.1	11	1	OAIF SARBU	P83518	sarcophaga
43	1	9.1	11	1	PKC1 CARMO		carausius m
44	1	9.1	11	1	PVK1 PERAM	P41837	periplaneta
45	1	9.1	11	1	RANC RANPI		rana pipien
46	1	9.1	11	1	RE41 LITRU		litoria rub
47	1	9.1	11	$\overline{1}$	RRPL CHAV		chandipura
48	1	9.1	11	1	T2P1 PROVU		proteus vul
49	1	9.1	11	1	TIN1 HOPTI		hoplobatrac
50	1	9.1	11	1	TKC2 CALVO		calliphora
51	1	9.1	11	1	TKN1 PSEGU		pseudophryn
52	1	9.1	11	1	TKN1 UPEIN		uperoleia i
53	1	9.1	11	1	TKN1_UPERU		_
54	1	9.1	11	1			uperoleia r pseudophryn
55	1	9.1		$\frac{1}{1}$	TKN2_PSEGU		
56			11		TKN2_UPERU		uperoleia r
	1	9.1	11	1	TKN3_PSEGU		pseudophryn
57	1	9.1	11	1			pseudophryn
58	1	9.1	11	1	TKN5_PSEGU		pseudophryn
59	1	9.1	11	1	TKNA_CHICK		gallus gall
60	1	9.1	11	1	TKNA_GADMO		gadus morhu
61	1	9.1	11	1	TKNA_HORSE		equus cabal
62	1	9.1	11	$\cdot 1$	TKNA_ONCMY		oncorhynchu
63	1	9.1	11	1	TKNA_RANCA		rana catesb
64	1	9.1	. 11	1	TKNA_RANRI		rana ridibu
65	1	9.1	11	1	TKNA_SCYCA	P41333	scyliorhinu
66	1	9.1	11	1	TKND_RANCA	P22691	rana catesb
67	1	9.1	11	1	TKN_ELEMO	P01293	eledone mos
68	1	9.1	11	1	TKN PHYFU	P08615	physalaemus
69	1	9.1	11	1	UF05 MOUSE		mus musculu
70	1	9.1	11	1	ULAG HUMAN		homo sapien
					-		1

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RESULT 1
UXB2 YEAST
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                    STANDARD;
                                    PRT:
                                            11 AA.
AC
     P99013;
DT
     01-NOV-1995 (Rel. 32, Created)
DT
     01-NOV-1995 (Rel. 32, Last sequence update)
     15-MAR-2004 (Rel. 43, Last annotation update)
DT
DE
     Unknown protein from 2D-page (Spot 2D-000K2F) (Fragment).
OS
     Saccharomyces cerevisiae (Baker's yeast).
OC
     Eukaryota; Fungi; Ascomycota; Saccharomycotina; Saccharomycetes;
OC
     Saccharomycetales; Saccharomycetaceae; Saccharomyces.
OX
     NCBI TaxID=4932;
RN
     [1]
RP
     SEQUENCE.
RC
     STRAIN=X2180-1A;
RA
     Sanchez J.-C., Golaz O., Schaller D., Morch F., Frutiger S.,
RA
     Hughes G.J., Appel R.D., Deshusses J., Hochstrasser D.F.;
RL
     Submitted (AUG-1995) to Swiss-Prot.
CC
     -!- MISCELLANEOUS: On the 2D-gel the determined pI of this unknown
CC
         protein is: 6.20, its MW is: 9.2 kDa.
     SWISS-2DPAGE; P99013; YEAST.
DR
FT
     NON TER
                  11
                         11
SO
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                        1328 MW;
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             3; Conservative
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            1 ARK 3
Qу
              111
Db
            7 ARK 9
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BRK MEGFL
     BRK MEGFL
ID
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                                    PRT;
                                            11 AA.
AC
     P12797;
DT
     01-OCT-1989 (Rel. 12, Created)
     01-OCT-1989 (Rel. 12, Last sequence update)
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
DT
DE
     Megascoliakinin ([Thr6]bradykinin-Lys-Ala) [Contains: Bradykinin-like
DE
     peptide ([Thr6]bradykinin)].
     Megascolia flavifrons (Garden dagger wasp) (Solitary wasp).
OS
OC
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC
     Neoptera; Endopterygota; Hymenoptera; Apocrita; Aculeata; Vespoidea;
OC
     Scoliidae; Megascolia.
     NCBI TaxID=7437;
OX
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Venom;
RX
     MEDLINE=87293024; PubMed=3617088;
RA
     Yasuhara T., Mantel P., Nakajima T., Piek T.;
     "Two kinins isolated from an extract of the venom reservoirs of the
RT
RT
     solitary wasp Megascolia flavifrons.";
     Toxicon 25:527-535(1987).
RL
RN
     [2]
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SEQUENCE.
RP
     TISSUE=Venom;
RC
     Nakajima T., Piek T., Yashuara T., Mantel P.;
RA
     "Two kinins isolated from the venom of Megascolia flavifrons.";
RT
     Toxicon 26:34-34(1988).
RL
     -!- FUNCTION: Both proteins have bradykinin-like, although lower
CC
         activities (e.g. smooth muscle contraction).
ĊС
     -!- SUBCELLULAR LOCATION: Secreted; wasp venom reservoirs.
CC
CC
     -!- SIMILARITY: Belongs to the bradykinin family.
     PIR; B26744; B26744.
DR
DR
     GO; GO:0005615; C:extracellular space; IDA.
     GO; GO:0045776; P:negative regulation of blood pressure; ISS.
DR
     GO; GO:0045987; P:positive regulation of smooth muscle contra. . .; TAS.
DR
     Bradykinin; Vasodilator.
KW
FT
     PEPTIDE
                   1
                         11
                                  MEGASCOLIAKININ.
                                  BRADYKININ-LIKE PEPTIDE.
                   1
                          9
FT
     PEPTIDE
                11 AA; 1273 MW;
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SQ
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                                                                              0;
  Matches
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                                                                  0;
                                                                     Gaps
            2 RK 3
Qу
              11
            9 RK 10
Db
RESULT 3
CORZ PERAM
     CORZ PERAM
                    STANDARD;
                                   PRT;
                                            11 AA.
     P11496;
AC
DТ
     01-OCT-1989 (Rel. 12, Created)
     01-FEB-1994 (Rel. 28, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DE
     Corazonin.
     Periplaneta americana (American cockroach).
OS
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC
OC
     Neoptera; Orthopteroidea; Dictyoptera; Blattaria; Blattoidea;
OC
     Blattidae; Periplaneta.
     NCBI TaxID=6978;
OX
RN
     [1]
     SEQUENCE.
RP
RC
     TISSUE=Corpora cardiaca;
     MEDLINE=89325572; PubMed=2753132;
RX
RA
     Veenstra J.A.;
     "Isolation and structure of corazonin, a cardioactive peptide from
RT
RT
     the American cockroach.";
     FEBS Lett. 250:231-234(1989).
RL
CC
     -!- FUNCTION: Cardioactive peptide. Corazonin is probably involved
CC
         in the physiological regulation of the heart beat.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
     PIR; S05002; S05002.
DR
KW
     Neuropeptide; Amidation; Pyrrolidone carboxylic acid.
     MOD RES
                   1
                                  PYRROLIDONE CARBOXYLIC ACID.
FT
                          1
     MOD RES
                  11
                         11
FT
                                  AMIDATION.
     SEOUENCE
                11 AA; 1387 MW; C7CFF32D6415AB46 CRC64;
SQ
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Ouery Match
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  Best Local Similarity 100.0%; Pred. No. 1.2e+04;
  Matches
            2; Conservative 0; Mismatches
                                                   0; Indels
                                                                              0;
                                                                  0; Gaps
Qу
            4 SR 5
              Dh
            6 SR 7
RESULT 4
CSI5 BACSU
     CSI5 BACSU
ΙD
                    STANDARD;
                                   PRT;
                                           11 AA.
AC
     P81095;
DT
     15-JUL-1998 (Rel. 36, Created)
     15-JUL-1998 (Rel. 36, Last sequence update)
\mathrm{D}\mathrm{T}
     28-FEB-2003 (Rel. 41, Last annotation update)
DT
DE
     Cold shock protein CSI5 (11 kDa cold shock protein) (Fragment).
OS
     Bacillus subtilis.
     Bacteria; Firmicutes; Bacillales; Bacillaceae; Bacillus.
OC
OX
     NCBI TaxID=1423;
RN
     [1]
     SEQUENCE.
RP
RC
     STRAIN=168 / JH642;
RA
     Graumann P.L., Schmid R., Marahiel M.A.;
RL
     Submitted (OCT-1997) to Swiss-Prot.
RN
     [2]
RP
     CHARACTERIZATION.
RC
     STRAIN=168 / JH642;
RX
     MEDLINE=96345629; PubMed=8755892;
     Graumann P., Schroeder K., Schmid R., Marahiel M.A.;
RA
RT
     "Cold shock stress-induced proteins in Bacillus subtilis.";
     J. Bacteriol. 178:4611-4619(1996).
RL
CC
     -!- SUBCELLULAR LOCATION: Cytoplasmic.
CC
     -!- INDUCTION: In response to low temperature.
CC
     -!- CAUTION: Could not be found in the genome of B.subtilis 168.
FT
     NON TER
                  11
                        11
SO
     SEQUENCE
                11 AA; 1360 MW; 15F6ECEE6322C330 CRC64;
  Query Match
                          18.2%; Score 2; DB 1; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.2e+04;
  Matches
             2; Conservative 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
           10 IK 11
Qу
              11
            4 IK 5
Db
RESULT 5
ES1 RAT
ID
    ES1 RAT
                    STANDARD;
                                   PRT:
                                           11 AA.
AC
     P56571;
DT
     15-DEC-1998 (Rel. 37, Created)
DT
     15-DEC-1998 (Rel. 37, Last sequence update)
DT
     15-MAR-2004 (Rel. 43, Last annotation update)
DE
     ES1 protein, mitochondrial (Fragment).
OS
     Rattus norvegicus (Rat).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
```

```
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
OX
     NCBI TaxID=10116;
RN
     [1]
     SEQUENCE.
RP
RC
     STRAIN=Wistar; TISSUE=Heart;
RA
     Li X.-P., Pleissner K.-P., Scheler C., Regitz-Zagrosek V., Salikov J.,
RA
     Jungblut P.R.;
RL
     Submitted (SEP-1998) to Swiss-Prot.
CC
     -!- SUBCELLULAR LOCATION: Mitochondrial (Potential).
     -!- MISCELLANEOUS: By 2D-PAGE, the determined pI of this protein (spot
CC
         P2) is: 8.9, its MW is: 25 kDa.
CC
     -!- SIMILARITY: BELONGS TO THE ES1 FAMILY.
CC
KW
     Mitochondrion.
FT
     NON TER
                  11
                         11
     SEQUENCE
SQ
                11 AA; 1142 MW; D862272D32C72DC2 CRC64;
  Query Match
                          18.2%; Score 2; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.2e+04;
                              0; Mismatches
  Matches
             2; Conservative
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
Qу
            1 AR 2
             11
            2 AR 3
Db
RESULT 6
NUHM CANFA
     NUHM CANFA
                                           11 AA.
ID
                    STANDARD;
                                   PRT;
     P49820;
AC
     01-OCT-1996 (Rel. 34, Created)
DT
     15-JUL-1998 (Rel. 36, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
     NADH-ubiquinone oxidoreductase 24 kDa subunit (EC 1.6.5.3)
DE
     (EC 1.6.99.3) (Fragment).
DE
GN
     NDUFV2.
     Canis familiaris (Dog).
OS
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.
OX
     NCBI TaxID=9615;
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Heart;
RX
     MEDLINE=98163340; PubMed=9504812;
RA
     Dunn M.J., Corbett J.M., Wheeler C.H.;
     "HSC-2DPAGE and the two-dimensional gel electrophoresis database of
RT
RT
     dog heart proteins.";
RL
     Electrophoresis 18:2795-2802(1997).
CC
     -!- FUNCTION: TRANSFER OF ELECTRONS FROM NADH TO THE RESPIRATORY
CC
         CHAIN. THE IMMEDIATE ELECTRON ACCEPTOR FOR THE ENZYME IS BELIEVED
         TO BE UBIQUINONE. COMPONENT OF THE FLAVOPROTEIN-SULFUR (FP)
CC
CC
         FRAGMENT OF THE ENZYME.
CC
     -!- CATALYTIC ACTIVITY: NADH + ubiquinone = NAD(+) + ubiquinol.
     -!- CATALYTIC ACTIVITY: NADH + acceptor = NAD(+) + reduced acceptor.
CC
CC
     -!- COFACTOR: Binds 1 2Fe-2S cluster (Potential).
CC
     -!- SUBUNIT: Mammalian complex I is composed of 45 different subunits.
CC
     -!- SUBCELLULAR LOCATION: Matrix and cytoplasmic side of the
CC
         mitochondrial inner membrane.
```

OC

```
-!- SIMILARITY: Belongs to the complex I 24 kDa subunit family.
DR
     HSC-2DPAGE; P49820; DOG.
     InterPro; IPR002023; Cmplx1 24kDa.
DR
     PROSITE; PS01099; COMPLEX1 24K; PARTIAL.
DR
     Oxidoreductase; NAD; Ubiquinone; Mitochondrion; Metal-binding;
KW
KW
     Iron-sulfur; Iron; 2Fe-2S.
FT
     NON TER
                  11
                         11
                11 AA; 1099 MW; 267F5369C9C72DD8 CRC64;
SQ
     SEQUENCE
  Query Match
                          18.2%; Score 2; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.2e+04;
  Matches
             2; Conservative
                               0; Mismatches
                                                  0; Indels
                                                                   0; Gaps
                                                                               0;
            5 RD 6
Qу
              10 RD 11
Db
RESULT 7
NXSN PSETE
    NXSN PSETE
                    STANDARD;
                                    PRT:
                                            11 AA.
     P59072;
AC
     28-FEB-2003 (Rel. 41, Created)
DT
     28-FEB-2003 (Rel. 41, Last sequence update) 28-FEB-2003 (Rel. 41, Last annotation update)
DT
DT
DE
     Short neurotoxin N1 (Alpha neurotoxin) (Fragment).
OS
     Pseudonaja textilis (Eastern brown snake).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Lepidosauria; Squamata; Scleroglossa; Serpentes; Colubroidea;
OC
     Elapidae; Acanthophiinae; Pseudonaja.
OX
     NCBI TaxID=8673;
RN
     [1]
     SEQUENCE, AND MASS SPECTROMETRY.
RP
RC
     TISSUE=Venom;
RX
     MEDLINE=99449602; PubMed=10518793;
RA
     Gong N.L., Armugam A., Jeyaseelan K.;
RT
     "Postsynaptic short-chain neurotoxins from Pseudonaja textilis: cDNA
RT
     cloning, expression and protein characterization.";
RL
     Eur. J. Biochem. 265:982-989(1999).
CC
     -!- FUNCTION: Lethal neurotoxin, binds and inhibits nicotinic
CC
         acetylcholine receptors (nAChR).
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Expressed by the venom gland.
CC
     -!- MASS SPECTROMETRY: MW=6236; METHOD=Electrospray.
CC
     -!- MISCELLANEOUS: LD(50) is 0.84 mg/kg by intravenous injection.
CC
     -!- SIMILARITY: Belongs to the snake toxin family.
     InterPro; IPR003571; Snake toxin.
DR
DR
    PROSITE; PS00272; SNAKE TOXIN; PARTIAL.
     Toxin; Neurotoxin; Postsynaptic neurotoxin;
KW
KW
     Acetylcholine receptor inhibitor; Multigene family.
FT
     UNSURE
                   3
FT
     NON TER
                  11
                         11
     SEQUENCE
SQ
                11 AA; 1319 MW;
                                  OD1EF0C81B58732B CRC64;
                          18.2%; Score 2; DB 1; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 1.2e+04;
  Matches
             2; Conservative 0; Mismatches
                                                 0; Indels
                                                                  0; Gaps
                                                                               0;
```

```
-11
           8 RD 9
Db
RESULT 8
PQQC PSEFL
ID
     PQQC PSEFL
                   STANDARD;
                                  PRT;
                                         11 AA.
     P55173;
AC
DT
     01-OCT-1996 (Rel. 34, Created)
DT
     01-OCT-1996 (Rel. 34, Last sequence update)
     10-OCT-2003 (Rel. 42, Last annotation update)
DE
    Coenzyme PQQ synthesis protein C (Pyrroloquinoline quinone
DE
    biosynthesis protein C) (Fragment).
GN
    PQQC.
OS
    Pseudomonas fluorescens.
OC
    Bacteria; Proteobacteria; Gammaproteobacteria; Pseudomonadales;
OC
    Pseudomonadaceae; Pseudomonas.
OX
    NCBI TaxID=294;
RN
     [1]
RP
    SEQUENCE FROM N.A.
RC
    STRAIN=CHA0;
    MEDLINE=96064397; PubMed=8526497;
RX
RA
     Schnider U., Keel C., Defago G., Haas D.;
     "Tn5-directed cloning of pqq genes from Pseudomonas fluorescens CHA0:
RT
RT
    mutational inactivation of the genes results in overproduction of the
    antibiotic pyoluteorin.";
RT
    Appl. Environ. Microbiol. 61:3856-3864(1995).
RL
     -!- PATHWAY: Pyrroloquinoline quinone (PQQ) biosynthesis.
CC
CC
    -!- SIMILARITY: Belongs to the pqqC family.
     _____
CC
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CC
    between the Swiss Institute of Bioinformatics and the EMBL outstation -
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    the European Bioinformatics Institute. There are no restrictions on its
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    use by non-profit institutions as long as its content is in no way
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    modified and this statement is not removed. Usage by and for commercial
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    or send an email to license@isb-sib.ch).
CC
DR
     EMBL; X87299; CAA60734.1; -.
     PIR; S58244; S58244.
DR
DR
    HAMAP; MF 00654; -; 1.
KW
    PQQ biosynthesis.
    NON TER
                 11
FT
                        11
     SEQUENCE
               11 AA; 1182 MW; 89DF46E4C5B73771 CRC64;
SQ
  Query Match
                         18.2%; Score 2; DB 1; Length 11;
                         100.0%; Pred. No. 1.2e+04;
  Best Local Similarity
            2; Conservative 0; Mismatches 0; Indels 0; Gaps
  Matches
                                                                          0;
           7 MT 8
QУ
             11
Db
           1 MT 2
```

Qу

5 RD 6

```
Q2OA COMTE
     O2OA COMTE
ID
                    STANDARD;
                                    PRT;
                                            11 AA.
     P80464;
AC
DT
     01-NOV-1995 (Rel. 32, Created)
     01-NOV-1995 (Rel. 32, Last sequence update)
DT
DT
     16-OCT-2001 (Rel. 40, Last annotation update)
DE
     Quinoline 2-oxidoreductase, alpha chain (EC 1.3.99.17) (Fragment).
     Comamonas testosteroni (Pseudomonas testosteroni).
OS
OC
     Bacteria; Proteobacteria; Betaproteobacteria; Burkholderiales;
OC
     Comamonadaceae; Comamonas.
OX
     NCBI TaxID=285;
RN
     [1]
RP
     SEQUENCE.
RC
     STRAIN=63;
RX
     MEDLINE=96035889; PubMed=7556204;
     Schach S., Tshisuaka B., Fetzner S., Lingens F.;
RA
     "Quinoline 2-oxidoreductase and 2-oxo-1,2-dihydroquinoline 5,6-
RT
RT
     dioxygenase from Comamonas testosteroni 63. The first two enzymes in
RT
     quinoline and 3-methylquinoline degradation.";
     Eur. J. Biochem. 232:536-544(1995).
RL
CC
     -!- FUNCTION: Converts (3-methyl-)-quinoline to (3-methyl-)2-oxo-
CC
         1,2-dihydroquinoline.
CC
     -!- CATALYTIC ACTIVITY: Quinoline + acceptor + H(2)O = isoquinolin-
CC
         1(2H) - one + reduced acceptor.
CC
     -!- COFACTOR: FAD, molybdenum and iron-sulfur.
CC
     -!- PATHWAY: Degradation of quinoline and (3-methyl-)quinoline; first
CC
CC
     -!- SUBUNIT: Heterohexamer of two alpha chains, two beta chains, and
CC
         two gamma chains (Probable).
     PIR; S66606; S66606.
DR
KW
     Oxidoreductase; Flavoprotein; FAD; Molybdenum.
FT
     NON TER
                  11
                         11
     SEQUENCE
SO
                11 AA;
                        1213 MW; 869094322B1DC2CA CRC64;
  Query Match
                           18.2%; Score 2; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.2e+04;
  Matches
            2; Conservative
                                 0; Mismatches
                                                    0;
                                                        Indels
                                                                   0; Gaps
                                                                               0;
Qу
            3 KS 4
              11
Db
            2 KS 3
RESULT 10
RR2 CONAM
     RR2 CONAM
ID
                    STANDARD;
                                    PRT;
                                            11 AA.
     P42341;
AC
DT
     01-NOV-1995 (Rel. 32, Created)
DT
     01-NOV-1995 (Rel. 32, Last sequence update)
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
DE
     Chloroplast 30S ribosomal protein S2 (Fragment).
GN
     RPS2.
OS
     Conopholis americana (Squawroot).
OG
     Chloroplast.
OC
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC
     Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; asterids;
OC
     lamiids; Lamiales; Orobanchaceae; Orobancheae; Conopholis.
```

```
NCBI TaxID=4179;
OX
RN
     [1]
RP
     SEQUENCE FROM N.A.
RX
     MEDLINE=92145776; PubMed=1723664;
RA
     Taylor G., Wolfe K.H., Morden C.W., Depamphilis C.W., Palmer J.D.;
RT
     "Lack of a functional plastid tRNA(Cys) gene is associated with loss
RT
     of photosynthesis in a lineage of parasitic plants.";
RL
     Curr. Genet. 20:515-518(1991).
CC
     -!- SIMILARITY: Belongs to the S2P family of ribosomal proteins.
CC
CC
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     between the Swiss Institute of Bioinformatics and the EMBL outstation -
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     the European Bioinformatics Institute. There are no restrictions on its
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     or send an email to license@isb-sib.ch).
CC
DR
     EMBL; X64567; CAA45868.1; -.
DR
     PIR; S32575; S32575.
DR
     HAMAP; MF 00291; -; 1.
     InterPro; IPR001865; Ribosomal S2.
DR
     PROSITE; PS00962; RIBOSOMAL S2 1; PARTIAL.
DR
     PROSITE; PS00963; RIBOSOMAL S2 2; PARTIAL.
DR
KW
     Ribosomal protein; Chloroplast.
FT
     NON TER
                 11
                         11
     SEQUENCE 11 AA; 1497 MW; 76CD719954536B44 CRC64;
SQ
                          18.2%; Score 2; DB 1; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.2e+04;
            2; Conservative 0; Mismatches 0; Indels
  Matches
                                                                 0; Gaps
                                                                             0;
            7 MT 8
Qу
              \mathbf{I}
Db
            1 MT 2
RESULT 11
RS30 ONCMY
     RS30 ONCMY
                    STANDARD;
                                   PRT; 11 AA.
ΙD
AC
     P83328;
DT
     28-FEB-2003 (Rel. 41, Created)
     28-FEB-2003 (Rel. 41, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DE
     40S ribosomal protein S30 (Fragment).
GN
OS
     Oncorhynchus mykiss (Rainbow trout) (Salmo gairdneri).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Actinopterygii; Neopterygii; Teleostei; Euteleostei;
OC
OC
     Protacanthopterygii; Salmoniformes; Salmonidae; Oncorhynchus.
OX
     NCBI TaxID=8022;
RN
     [1]
     SEQUENCE, FUNCTION, AND MASS SPECTROMETRY.
RP
RC
     TISSUE=Skin mucus;
     MEDLINE=22142142; PubMed=12147245;
RX
     Fernandes J.M.O., Smith V.J.;
RA
RT
     "A novel antimicrobial function for a ribosomal peptide from rainbow
```

```
trout skin.";
RT
     Biochem. Biophys. Res. Commun. 296:167-171(2002).
RL
     -!- FUNCTION: Has antibacterial activity against Gram-positive
CC
CC
         bacteria.
CC
     -!- MASS SPECTROMETRY: MW=6676.6; METHOD=MALDI.
     -!- SIMILARITY: Belongs to the S30E family of ribosomal proteins.
CC
KW
     Ribosomal protein; Antibiotic.
FT
                  11
                         11
SO
     SEQUENCE
                11 AA; 1123 MW; 2312AB630DD735B8 CRC64;
  Query Match
                          18.2%; Score 2; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.2e+04;
             2; Conservative
                               0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            1 AR 2
Qу
              Db
            7 AR 8
RESULT 12
TIN4 HOPTI
     TIN4 HOPTI
ID
                    STANDARD;
                                   PRT;
                                           11 AA.
AC
     P82654;
DT
     16-OCT-2001 (Rel. 40, Created)
     16-OCT-2001 (Rel. 40, Last sequence update)
DT
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DE
     Tigerinin-4.
OS
     Hoplobatrachus tigerinus (Indian bull frog) (Rana tigerina).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Ranoidea; Ranidae;
OC
     Hoplobatrachus.
OX
     NCBI TaxID=103373;
RN
     SEQUENCE, FUNCTION, MASS SPECTROMETRY, AND DISULFIDE BONDS.
RP
RC
     TISSUE=Skin secretion;
RX
     PubMed=11031261;
RA
     Purna Sai K., Jaganadham M.V., Vairamani M., Raju N.P.,
RA
     Devi A.S., Nagaraj R., Sitaram N.;
RT
     "Tigerinins: novel antimicrobial peptides from the Indian frog Rana
RT
     tigerina.";
RL
     J. Biol. Chem. 276:2701-2707(2001).
CC
     -!- FUNCTION: Antibacterial activity against B.subtilis, E.coli,
CC
         S.aureus, M.luteus, P.putida and S.cerevisiae.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
     -!- TISSUE SPECIFICITY: Skin.
CC
CC
     -!- MASS SPECTROMETRY: MW=1247; METHOD=MALDI.
KW
     Amphibian defense peptide; Antibiotic.
FT
     DISULFID
                   3
                         11
SQ
     SEQUENCE
                11 AA; 1248 MW; 117D8EFD37605DCB CRC64;
  Query Match
                          18.2%; Score 2; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.2e+04;
  Matches
           2; Conservative
                              0; Mismatches
                                                 0; Indels
            9 AI 10
Qу
              \perp
            5 AI 6
Db
```

```
RESULT 13
ANGT CRIGE
ΙD
     ANGT CRIGE
                    STANDARD;
                                    PRT;
                                            11 AA.
AC
     P09037;
DT
     01-NOV-1988 (Rel. 09, Created)
     01-NOV-1988 (Rel. 09, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DE
     Crinia-angiotensin II.
OS
     Crinia georgiana (Quacking frog).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Myobatrachidae;
OC
     Myobatrachinae; Crinia.
OX
     NCBI TaxID=8374;
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Skin secretion;
RX
     MEDLINE=80024575; PubMed=488254;
     Erspamer V., Melchiorri P., Nakajima T., Yasuhara T., Endean R.;
RA
RT
     "Amino acid composition and sequence of crinia-angiotensin, an
RT
     angiotensin II-like endecapeptide from the skin of the Australian
RT
     frog Crinia georgiana.";
     Experientia 35:1132-1133(1979).
RL
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin.
DR
     PIR; S07207; S07207.
KW
     Vasoconstrictor.
SO
     SEQUENCE
                11 AA; 1271 MW;
                                  8A0921F7DB50440A CRC64;
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 9.8e+04;
  Best Local Similarity
  Matches
             1; Conservative
                                0; Mismatches
                                                  0; Indels
                                                                  0; Gaps
                                                                               0;
            1 A 1
Qу
             Db
            1 A 1
RESULT 14
ASL1 BACSE
ID
     ASL1 BACSE
                    STANDARD;
                                   PRT:
                                            11 AA.
     P83146;
AC
DT
     28-FEB-2003 (Rel. 41, Created)
DT
     28-FEB-2003 (Rel. 41, Last sequence update)
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
     Acharan sulfate lyase 1 (EC 4.2.2.-) (Fragment).
DE
OS
     Bacteroides stercoris.
OC
     Bacteria; Bacteroidetes; Bacteroides (class); Bacteroidales;
OC
     Bacteroidaceae; Bacteroides.
OX
     NCBI TaxID=46506;
RN
     [1]
RP
     SEQUENCE, FUNCTION, ENZYME REGULATION, AND SUBUNIT.
RC
     STRAIN=HJ-15;
RX
     MEDLINE=21223019; PubMed=11322884;
RA
     Kim B.-T., Hong S.-W., Kim W.-S., Kim Y.S., Kim D.-H.;
RT
     "Purification and characterization of acharan sulfate lyases, two
```

```
novel heparinases, from Bacteroides stercoris HJ-15.";
RT
     Eur. J. Biochem. 268:2635-2641(2001).
RL
CC
     -!- FUNCTION: Degrades acharan sulfate and, to a lesser extent,
         heparin and heparan sulfate.
CC
     -!- ENZYME REGULATION: Inhibited by cupric ion, nitrogen and cobalt.
CC
CC
         Activated by reducing agents, such as DL-dithiothreitol and 2-
         mercaptoethanol.
CC
CC
     -!- SUBUNIT: Monomer.
     -!- PTM: The N-terminus is blocked.
CC
CC
     -!- MISCELLANEOUS: Has an isoelectric point of 8.6. Its optimum pH is
         7.2 and optimum temperature 45 degrees Celsius.
CC
KW
     Lyase; Heparin-binding.
FT
     NON TER
                   1
                          1
FT
     NON TER
                  11
                         11
     SEQUENCE
                        1395 MW; 01B2DAA241E865AB CRC64;
SQ
                11 AA;
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 9.8e+04;
                                                    0;
  Matches
             1; Conservative
                               0; Mismatches
                                                                               0;
                                                        Indels
                                                                   0; Gaps
           10 I 10
Qy
Db
            3 I 3
RESULT 15
ASL2 BACSE
     ASL2 BACSE
ID
                    STANDARD;
                                    PRT;
                                            11 AA.
AC
     P83147;
DT
     28-FEB-2003 (Rel. 41, Created)
DT
     28-FEB-2003 (Rel. 41, Last sequence update)
     28-FEB-2003 (Rel. 41, Last annotation update)
DT
     Acharan sulfate lyase 2 (EC 4.2.2.-) (Fragment).
DE
OS
     Bacteroides stercoris.
OC
     Bacteria; Bacteroidetes; Bacteroides (class); Bacteroidales;
OC
     Bacteroidaceae; Bacteroides.
OX
     NCBI TaxID=46506;
RN
     [1]
RP
     SEQUENCE, FUNCTION, ENZYME REGULATION, AND SUBUNIT.
RC
     STRAIN=HJ-15;
RX
     MEDLINE=21223019; PubMed=11322884;
RA
     Kim B.-T., Hong S.-W., Kim W.-S., Kim Y.S., Kim D.-H.;
RT
     "Purification and characterization of acharan sulfate lyases, two
RT
     novel heparinases, from Bacteroides stercoris HJ-15.";
     Eur. J. Biochem. 268:2635-2641(2001).
RL
CC
     -!- FUNCTION: Degrades acharan sulfate and, to a lesser extent,
CC
         heparin and heparan sulfate.
CC
     -!- ENZYME REGULATION: Inhibited by cupric ion, nitrogen and lead.
СC
         Activated by reducing agents, such as DL-dithiothreitol and 2-
CC
         mercaptoethanol.
CC
     -!- SUBUNIT: Monomer.
CC
     -!- PTM: The N-terminus is blocked.
CC
     -!- MISCELLANEOUS: Has an isoelectric point of 8.6. Its optimum pH is
CC
         7.2 and optimum temperature 45 degrees Celsius.
KW
     Lyase; Heparin-binding.
FT
     NON TER
                   -1
                          1
FT
     NON TER
                  11
                         11
```

```
SEQUENCE
                11 AA; 1195 MW; D79D897C7AA451AD CRC64;
SO
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 9.8e+04;
                                                                              0;
  Matches
             1; Conservative
                                 0; Mismatches
                                                    0;
                                                        Indels
                                                                  0; Gaps
            8 T 8
Qу
Db
            1 T 1
RESULT 16
BPP3 BOTIN
     BPP3 BOTIN
                    STANDARD;
                                    PRT;
                                            11 AA.
ID
     P30423;
AC
     01-APR-1993 (Rel. 25, Created)
DT
     01-FEB-1994 (Rel. 28, Last sequence update)
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
DT
     Bradykinin-potentiating peptide S4,3,2 (10C) (Angiotensin-converting
DE
     enzyme inhibitor).
DE
     Bothrops insularis (Island jararaca) (Queimada jararaca).
OS
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
     Lepidosauria; Squamata; Scleroglossa; Serpentes; Colubroidea;
OC
     Viperidae; Crotalinae; Bothrops.
OC
     NCBI TaxID=8723;
OX
RN
     [1]
RP
     SEOUENCE.
RC
     TISSUE=Venom:
     MEDLINE=90351557; PubMed=2386615;
RX
     Cintra A.C.O., Vieira C.A., Giglio J.R.;
RA
     "Primary structure and biological activity of bradykinin potentiating
RT
     peptides from Bothrops insularis snake venom.";
RT
     J. Protein Chem. 9:221-227(1990).
RL
     -!- FUNCTION: This peptide both inhibits the activity of the
CC
CC
         angiotensin-converting enzyme and enhances the action of
         bradykinin by inhibiting the kinases that inactivate it.
CC
         It acts as an indirect hypotensive agent.
CC
DR
     PIR; C37196; C37196.
KW
     Hypotensive agent; Pyrrolidone carboxylic acid.
FT
     MOD RES
                   1
                                  PYRROLIDONE CARBOXYLIC ACID.
                          1
     SEQUENCE
                11 AA; 1199 MW; 20B25813C7741777 CRC64;
SO
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
                          100.0%; Pred. No. 9.8e+04;
  Best Local Similarity
             1; Conservative
                                 0; Mismatches
                                                                  0; Gaps
                                                                              0;
  Matches
                                                    0;
                                                       Indels
            2 R 2
Qy
              -
            6 R 6
Db
RESULT 17
BPP4 BOTIN
                                            11 AA.
ID
     BPP4 BOTIN
                    STANDARD;
                                    PRT;
     P30424:
AC
DT
     01-APR-1993 (Rel. 25, Created)
     01-FEB-1994 (Rel. 28, Last sequence update)
DΤ
```

```
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
     Bradykinin-potentiating peptide S4,1,2 (Angiotensin-converting
DE
     enzyme inhibitor).
DE
     Bothrops insularis (Island jararaca) (Queimada jararaca).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
OC
     Lepidosauria; Squamata; Scleroglossa; Serpentes; Colubroidea;
OC
     Viperidae; Crotalinae; Bothrops.
OX
     NCBI TaxID=8723;
RN
     [1]
     SEQUENCE.
RP
RC
     TISSUE=Venom;
     MEDLINE=90351557; PubMed=2386615;
RX
RA
     Cintra A.C.O., Vieira C.A., Giglio J.R.;
     "Primary structure and biological activity of bradykinin potentiating
RT
     peptides from Bothrops insularis snake venom.";
RT
     J. Protein Chem. 9:221-227(1990).
RL
     -!- FUNCTION: This peptide both inhibits the activity of the
CC
CC
         angiotensin-converting enzyme and enhances the action of
CC
         bradykinin by inhibiting the kinases that inactivate it.
CC
         It acts as an indirect hypotensive agent.
DR
     PIR; D37196; D37196.
KW
     Hypotensive agent; Pyrrolidone carboxylic acid.
FT
     MOD RES
                                  PYRROLIDONE CARBOXYLIC ACID.
                   1
                          1
     SEOUENCE
                11 AA; 1143 MW;
SO
                                  20BBBF13C7741777 CRC64;
  Query Match
                           9.1%;
                                  Score 1; DB 1; Length 11;
                          100.0%; Pred. No. 9.8e+04;
  Best Local Similarity
  Matches
             1; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
            2 R 2
Qу
            6 R 6
Db
RESULT 18
BPPB AGKHA
     BPPB AGKHA
                    STANDARD;
ID
                                    PRT;
                                            11 AA.
AC
     P01021;
DT
     21-JUL-1986 (Rel. 01, Created)
DT
     01-FEB-1994 (Rel. 28, Last sequence update)
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
DΕ
     Bradykinin-potentiating peptide B (Angiotensin-converting
DE
     enzyme inhibitor).
OS
     Agkistrodon halys blomhoffi (Mamushi) (Gloydius blomhoffii).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Lepidosauria; Squamata; Scleroglossa; Serpentes; Colubroidea;
OC
     Viperidae; Crotalinae; Gloydius.
OX
     NCBI TaxID=242054;
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Venom;
RA
     Kato H., Suzuki T.;
RT
     "Amino acid sequence of bradykinin-potentiating peptide isolated from
RT
     the venom of Agkistrodon halvs blomhoffii.";
RL
     Proc. Jpn. Acad., B, Phys. Biol. Sci. 46:176-181(1970).
CC
     -!- FUNCTION: This peptide both inhibits the activity of the
CC
         angiotensin-converting enzyme and enhances the action of
```

```
CC
         bradykinin by inhibiting the kinases that inactivate it.
CC
         It acts as an indirect hypotensive agent.
DR
     PIR; A01254; XASNBA.
     Hypotensive agent; Pyrrolidone carboxylic acid.
KW
FT
     MOD RES
                   1
                          1
                                  PYRROLIDONE CARBOXYLIC ACID.
     SEQUENCE
SO
                11 AA; 1199 MW;
                                  295CBF0627741777 CRC64;
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity 100.0%; Pred. No. 9.8e+04;
  Matches
             1; Conservative
                               0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0:
            2 R 2
Qу
              1
Db
            6 R 6
RESULT 19
BPP AGKHP
     BPP AGKHP
ID
                    STANDARD;
                                   PRT; 11 AA.
     P04562;
AC
DT
     13-AUG-1987 (Rel. 05, Created)
DT
     01-FEB-1994 (Rel. 28, Last sequence update)
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
DE
     Bradykinin-potentiating peptide (Angiotensin-converting
DE
     enzyme inhibitor).
     Agkistrodon halys pallas (Chinese water mocassin) (Gloydius halys
os
OS
     pallas).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Lepidosauria; Squamata; Scleroglossa; Serpentes; Colubroidea;
OC
     Viperidae; Crotalinae; Gloydius.
OX
     NCBI TaxID=8714;
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Venom;
RX
     MEDLINE=86177022; PubMed=3008123;
     Chi C.-W., Wang S.-Z., Xu L.-G., Wang M.-Y., Lo S.-S., Huang W.-D.;
RA
RT
     "Structure-function studies on the bradykinin potentiating peptide
RT
     from Chinese snake venom (Agkistrodon halys pallas).";
RL
     Peptides 6 Suppl. 3:339-342(1985).
CC
     -!- FUNCTION: This peptide both inhibits the activity of the
CC
         angiotensin-converting enzyme and enhances the action of
CC
         bradykinin by inhibiting the kinases that inactivate it.
CC
         It acts as an indirect hypotensive agent.
DR
     PIR; JC0002; XAVIBH.
KW
     Hypotensive agent; Pyrrolidone carboxylic acid.
FT
     MOD RES
                                  PYRROLIDONE CARBOXYLIC ACID.
                   1
                          1
     SEQUENCE
SQ
                11 AA; 1112 MW;
                                  30BABF1277686777 CRC64;
  Query Match
                           9.1%;
                                  Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 9.8e+04;
  Matches
             1; Conservative
                                 0; Mismatches
                                                  0; Indels
                                                                  0; Gaps
                                                                              0;
            2 R 2
Qy
Db
            3 R 3
```

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RESULT 20
CA21 LITCI
     CA21 LITCI
ID
                    STANDARD;
                                   PRT:
                                           11 AA.
AC
     P82087;
DT
     16-OCT-2001 (Rel. 40, Created)
DT
     16-OCT-2001 (Rel. 40, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DΕ
     Caerulein 2.1/2.1Y4.
OS
     Litoria citropa (Australian blue mountains tree frog).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Hylidae;
OC
OC
     Pelodryadinae; Litoria.
OX
     NCBI TaxID=94770;
RN
     SEQUENCE, AND MASS SPECTROMETRY.
RΡ
RC
     TISSUE=Skin secretion;
RX
    MEDLINE=20057701; PubMed=10589099;
     Wabnitz P.A., Bowie J.H., Tyler M.J.;
RA
     "Caerulein-like peptides from the skin glands of the Australian blue
RT
RT
     montains tree frog Litoria citropa. Part 1. Sequence determination
RT
     using electrospray mass spectrometry.";
     Rapid Commun. Mass Spectrom. 13:2498-2502(1999).
RL
CC
     -!- FUNCTION: Hypotensive neuropeptide (Probable).
CC
     -!- SUBCELLULAR LOCATION: Secreted.
     -!- TISSUE SPECIFICITY: Skin dorsal glands.
CC
CC
     -!- PTM: Isoform 2.1Y4 differs from isoform 2.1 in not being
CC
         sulfated.
CC
     -!- MASS SPECTROMETRY: MW=1372; METHOD=Electrospray.
     -!- SIMILARITY: Belongs to the gastrin/cholecystokinin family.
CC
     InterPro; IPR001651; Gastrin.
DR
     PROSITE; PS00259; GASTRIN; FALSE NEG.
     Amphibian defense peptide; Hypotensive agent; Amidation; Sulfation;
KW
KW
     Pyrrolidone carboxylic acid.
FT
     MOD RES
                   1
                                  PYRROLIDONE CARBOXYLIC ACID.
FT
     MOD_RES
                   4
                          4
                                  SULFATION.
FT
     MOD RES
                  11
                         11
                                  AMIDATION.
SQ
     SEQUENCE
                11 AA; 1312 MW; 10DAB7C4EDD861BB CRC64;
  Query Match
                           9.1%;
                                  Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 9.8e+04;
  Matches
                                 0; Mismatches
                                                                              0;
             1; Conservative
                                                  0; Indels
                                                                  0; Gaps
            6 D 6
Qу
            3 D 3
Db
RESULT 21
CA22 LITCI
     CA22 LITCI
ID
                    STANDARD;
                                   PRT;
                                           11 AA.
     P82088;
AC
     16-OCT-2001 (Rel. 40, Created)
DT
     16-OCT-2001 (Rel. 40, Last sequence update)
DT
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DE
     Caerulein 2.2/2.2Y4.
OS
     Litoria citropa (Australian blue mountains tree frog).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
```

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OC
     Pelodryadinae; Litoria.
     NCBI TaxID=94770;
OX
RN
     [1]
RP
     SEQUENCE, AND MASS SPECTROMETRY.
RC
     TISSUE=Skin secretion;
RX
    MEDLINE=20057701; PubMed=10589099;
RA
     Wabnitz P.A., Bowie J.H., Tyler M.J.;
RT
     "Caerulein-like peptides from the skin glands of the Australian blue
RT
     montains tree frog Litoria citropa. Part 1. Sequence determination
     using electrospray mass spectrometry.";
RT
RL
     Rapid Commun. Mass Spectrom. 13:2498-2502(1999).
CC
     -!- FUNCTION: Hypotensive neuropeptide (Probable).
     -!- SUBCELLULAR LOCATION: Secreted.
CC
CC
     -!- TISSUE SPECIFICITY: Skin dorsal glands.
CC
     -!- PTM: Isoform 2.2Y4 differs from isoform 2.2 in not being
CC
         sulfated.
     -!- MASS SPECTROMETRY: MW=1388; METHOD=Electrospray.
CC
CC
     -!- SIMILARITY: Belongs to the gastrin/cholecystokinin family.
DR
     InterPro; IPR001651; Gastrin.
DR
     PROSITE; PS00259; GASTRIN; FALSE NEG.
     Amphibian defense peptide; Hypotensive agent; Amidation; Sulfation;
KW
KW
     Pyrrolidone carboxylic acid.
FΤ
    MOD RES
                   1
                          1
                                  PYRROLIDONE CARBOXYLIC ACID.
    MOD RES
FT
                   4
                          4
                                  SULFATION.
FT
     MOD RES
                         11
                                  AMIDATION.
                  11
SO
     SEQUENCE
                11 AA; 1328 MW;
                                  10DAB894EDD861BB CRC64;
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 9.8e+04;
                                                                  0; Gaps
  Matches
             1; Conservative
                                 0; Mismatches
                                                   0; Indels
                                                                               0:
            6 D 6
Qу
              1
Db
            3 D 3
RESULT 22
CA31 LITCI
     CA31 LITCI
ID
                    STANDARD;
                                   PRT;
                                            11 AA.
AC
     P82089;
DT
     16-OCT-2001 (Rel. 40, Created)
DT
     16-OCT-2001 (Rel. 40, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DE
     Caerulein 3.1/3.1Y4.
     Litoria citropa (Australian blue mountains tree frog).
OS
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Hylidae;
OC
     Pelodryadinae; Litoria.
OX
     NCBI TaxID=94770;
RN
     [1]
     SEQUENCE, AND MASS SPECTROMETRY.
RP
RC
     TISSUE=Skin secretion;
RX
     MEDLINE=20057701; PubMed=10589099;
RA
     Wabnitz P.A., Bowie J.H., Tyler M.J.;
RT
     "Caerulein-like peptides from the skin glands of the Australian blue
RT
     montains tree frog Litoria citropa. Part 1. Sequence determination
```

Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Hylidae;

OC

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RT
     using electrospray mass spectrometry.";
     Rapid Commun. Mass Spectrom. 13:2498-2502(1999).
RL
CC
     -!- FUNCTION: Hypotensive neuropeptide (Probable).
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin dorsal glands.
CC
CC
     -!- PTM: Isoform 3.1Y4 differs from isoform 3.1 in not being
CC
         sulfated.
CC
     -!- MASS SPECTROMETRY: MW=1407; METHOD=Electrospray.
CC
     -!- SIMILARITY: Belongs to the gastrin/cholecystokinin family.
     InterPro; IPR001651; Gastrin.
DR
     PROSITE; PS00259; GASTRIN; FALSE NEG.
DR
     Amphibian defense peptide; Hypotensive agent; Amidation; Sulfation;
KW
     Pyrrolidone carboxylic acid.
KW
     MOD RES
                   1
                                  PYRROLIDONE CARBOXYLIC ACID.
FT
                          1
     MOD RES
FT
                   4
                          4
                                  SULFATION.
     MOD RES
FT
                  11
                         11
                                  AMIDATION.
     SEQUENCE
                11 AA; 1347 MW; 10DAB7D67861A86B CRC64;
SQ
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity 100.0%; Pred. No. 9.8e+04;
           1; Conservative 0; Mismatches
                                                   0; Indels
  Matches
                                                                  0; Gaps
                                                                              0;
            6 D 6
Qу
            3 D 3
Db
RESULT 23
CA32 LITCI
     CA32 LITCI
                    STANDARD;
                                   PRT;
                                           11 AA.
     P82090;
AC
DT
     16-OCT-2001 (Rel. 40, Created)
     16-OCT-2001 (Rel. 40, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DΕ
     Caerulein 3.2/3.2Y4.
     Litoria citropa (Australian blue mountains tree frog).
OS
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Hylidae;
OC
     Pelodryadinae; Litoria.
OX
     NCBI TaxID=94770;
RN
     [1]
RP
     SEQUENCE, AND MASS SPECTROMETRY.
RC
     TISSUE=Skin secretion;
     MEDLINE=20057701; PubMed=10589099;
RX
     Wabnitz P.A., Bowie J.H., Tyler M.J.;
RA
     "Caerulein-like peptides from the skin glands of the Australian blue
RT
     montains tree frog Litoria citropa. Part 1. Sequence determination
RT
     using electrospray mass spectrometry.";
RT
     Rapid Commun. Mass Spectrom. 13:2498-2502(1999).
RL
CC
     -!- FUNCTION: Hypotensive neuropeptide (Probable).
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin dorsal glands.
CC
     -!- PTM: Isoform 3.2Y4 differs from isoform 3.2 in not being
CC
         sulfated.
CC
     -!- MASS SPECTROMETRY: MW=1423; METHOD=Electrospray.
CC
     -!- SIMILARITY: Belongs to the gastrin/cholecystokinin family.
DR
     InterPro; IPR001651; Gastrin.
```

```
KW
     Amphibian defense peptide; Hypotensive agent; Amidation; Sulfation;
KW
     Pyrrolidone carboxylic acid.
FT
     MOD RES
                   1
                                  PYRROLIDONE CARBOXYLIC ACID.
                   4
     MOD RES
                          4
FT
                                  SULFATION.
FT
     MOD RES
                  11
                         11
                                  AMIDATION.
     SEOUENCE
SO
                11 AA; 1363 MW; 10DAB8867861A86B CRC64;
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 9.8e+04;
             1; Conservative
                                 0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            6 D 6
Qу
              18
            3 D 3
Db
RESULT 24
CA41 LITCI
ΙD
     CA41 LITCI
                                   PRT;
                    STANDARD;
                                           11 AA.
     P82091;
AC
DT
     16-OCT-2001 (Rel. 40, Created)
     16-OCT-2001 (Rel. 40, Last sequence update)
DT
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
     Caerulein 4.1/4.1Y4.
DE
OS
     Litoria citropa (Australian blue mountains tree frog).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Hylidae;
OC
OC
     Pelodryadinae; Litoria.
    NCBI TaxID=94770;
OX
RN
RP
     SEQUENCE, AND MASS SPECTROMETRY.
RC
     TISSUE=Skin secretion;
RX
     MEDLINE=20057701; PubMed=10589099;
RA
     Wabnitz P.A., Bowie J.H., Tyler M.J.;
RT
     "Caerulein-like peptides from the skin glands of the Australian blue
RT
     montains tree frog Litoria citropa. Part 1. Sequence determination
RT
     using electrospray mass spectrometry.";
RL
     Rapid Commun. Mass Spectrom. 13:2498-2502(1999).
CC
     -!- FUNCTION: Hypotensive neuropeptide (Probable).
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin dorsal glands.
CC
     -!- PTM: Isoform 4.1Y4 differs from isoform 4.1 in not being
CC
         sulfated.
CC
     -!- MASS SPECTROMETRY: MW=1388; METHOD=Electrospray.
CC
    -!- SIMILARITY: Belongs to the gastrin/cholecystokinin family.
DR
     InterPro; IPR001651; Gastrin.
     PROSITE; PS00259; GASTRIN; FALSE_NEG.
DR
    Amphibian defense peptide; Hypotensive agent; Amidation; Sulfation;
KW
     Pyrrolidone carboxylic acid.
KW
FT
    MOD RES
                   1
                          1
                                  PYRROLIDONE CARBOXYLIC ACID.
    MOD RES
FT
                  4
                          4
                                  SULFATION.
FT
    MOD RES
                  11
                         11
                                  AMIDATION.
SQ
     SEQUENCE 11 AA; 1328 MW; 10DAB7C4F5B861BB CRC64;
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity 100.0%; Pred. No. 9.8e+04;
```

PROSITE; PS00259; GASTRIN; FALSE NEG.

DR

```
0;
 Matches
           1; Conservative 0; Mismatches 0; Indels
                                                                 0; Gaps
            6 D 6
Qy
            3 D 3
RESULT 25
CA42 LITCI
ID
     CA42 LITCI
                    STANDARD;
                                   PRT;
                                           11 AA.
AC
     P82092;
DT
     16-OCT-2001 (Rel. 40, Created)
     16-OCT-2001 (Rel. 40, Last sequence update)
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
     Caerulein 4.2/4.2Y4.
DE
OS
     Litoria citropa (Australian blue mountains tree frog).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Hylidae;
OC
     Pelodryadinae; Litoria.
OC
OX
     NCBI TaxID=94770;
RN
     [1]
     SEQUENCE, AND MASS SPECTROMETRY.
RP
     TISSUE=Skin secretion;
RC
     MEDLINE=20057701; PubMed=10589099;
RX
     Wabnitz P.A., Bowie J.H., Tyler M.J.;
RA
     "Caerulein-like peptides from the skin glands of the Australian blue
RT
    montains tree frog Litoria citropa. Part 1. Sequence determination
RT
     using electrospray mass spectrometry.";
RT
     Rapid Commun. Mass Spectrom. 13:2498-2502(1999).
RL
     -!- FUNCTION: Hypotensive neuropeptide (Probable).
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
    -!- TISSUE SPECIFICITY: Skin dorsal glands.
CC
     -!- PTM: Isoform 4.2Y4 differs from isoform 4.2 in not being
CC
CC
         sulfated.
     -!- MASS SPECTROMETRY: MW=1404; METHOD=Electrospray.
CC
CC
     -!- SIMILARITY: Belongs to the gastrin/cholecystokinin family.
DR
     InterPro; IPR001651; Gastrin.
     PROSITE; PS00259; GASTRIN; FALSE NEG.
DR
     Amphibian defense peptide; Hypotensive agent; Amidation; Sulfation;
KW
     Pyrrolidone carboxylic acid.
KW
     MOD RES
                                  PYRROLIDONE CARBOXYLIC ACID.
FT
                   1
                          1
     MOD_RES
FT
                   4
                          4
                                  SULFATION.
     MOD RES
                         11
                                  AMIDATION.
FT
                  11
     SEQUENCE
                11 AA; 1344 MW;
                                 10DAB894F5B861BB CRC64;
SQ
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity 100.0%; Pred. No. 9.8e+04;
  Matches
            1; Conservative
                                0; Mismatches 0; Indels
                                                                 0; Gaps
                                                                             0;
            6 D 6
Qу
              1
            3 D 3
Db
RESULT 26
CEP1 ACHFU
ID CEP1 ACHFU
                    STANDARD;
                                   PRT;
                                           11 AA.
```

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AC
     P22790;
DT
     01-AUG-1991 (Rel. 19, Created)
     01-AUG-1991 (Rel. 19, Last sequence update)
DT
DT
     01-DEC-1992 (Rel. 24, Last annotation update)
DE
     Cardio-excitatory peptide-1 (ACEP-1).
OS
     Achatina fulica (Giant African snail).
OC
     Eukaryota; Metazoa; Mollusca; Gastropoda; Pulmonata; Stylommatophora;
     Sigmurethra; Achatinoidea; Achatinidae; Achatina.
OC
OX
     NCBI TaxID=6530;
RN
     [1]
RP
     SEQUENCE.
RC
     STRAIN=Ferussac; TISSUE=Heart atrium;
RX
     MEDLINE=90211261; PubMed=2322251;
     Fujimoto K., Ohta N., Yoshida M., Kubota I., Muneoka Y., Kobayashi M.;
RA
     "A novel cardio-excitatory peptide isolated from the atria of the
RT
     African giant snail, Achatina fulica.";
RT
     Biochem. Biophys. Res. Commun. 167:777-783(1990).
RL
     -!- FUNCTION: Potentiates the beat of the ventricle, and has also
CC
         excitatory actions on the penis retractor muscle, the buccal
CC
         muscle and the identified neurons controlling the buccal muscle
CC
CC
         movement of achatina.
     -!- SIMILARITY: TO POSSIBLE PEPTIDE L5 FROM APLYSIA.
CC
     PIR; A34662; A34662.
DR
KW
     Hormone; Amidation.
FT
     MOD RES
                          11
                                   AMIDATION.
     SEOUENCE
                        1305 MW;
                                   82D6D5B9C7741365 CRC64;
SQ
                 11 AA;
                                   Score 1; DB 1; Length 11;
  Query Match
                            9.1%;
· Best Local Similarity
                           100.0%; Pred. No. 9.8e+04;
             1; Conservative
                                  0; Mismatches
                                                     0;
                                                          Indels
                                                                    0; Gaps
                                                                                 0;
             4 S 4
Qу
Db
             1 S 1
RESULT 27
COXA CANFA
ID
     COXA CANFA
                     STANDARD;
                                     PRT;
                                             11 AA.
     P99501;
AC
     15-JUL-1998 (Rel. 36, Created)
DT
     15-JUL-1998 (Rel. 36, Last sequence update) 30-MAY-2000 (Rel. 39, Last annotation update)
DT
DT
     Cytochrome c oxidase polypeptide Va (EC 1.9.3.1) (Fragment).
DΕ
GN
     COX5A.
OS
     Canis familiaris (Dog).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.
OC
     NCBI TaxID=9615;
OX
RN
     [1]
     SEQUENCE.
RP
RC
     TISSUE=Heart;
     MEDLINE=98163340; PubMed=9504812;
RX
     Dunn M.J., Corbett J.M., Wheeler C.H.;
RA
     "HSC-2DPAGE and the two-dimensional gel electrophoresis database of
RT
     dog heart proteins.";
RT
RL
     Electrophoresis 18:2795-2802(1997).
```

```
-!- FUNCTION: This is the heme A-containing chain of cytochrome c
CC
         oxidase, the terminal oxidase in mitochondrial electron transport.
CC
     -!- CATALYTIC ACTIVITY: 4 ferrocytochrome c + O(2) = 4 ferricytochrome
CC
         c + 2 H(2)0.
CC
     -!- SUBCELLULAR LOCATION: Mitochondrial inner membrane.
     -!- SIMILARITY: Belongs to the cytochrome c oxidase Va family.
CC
DR
     HSC-2DPAGE; P99501; DOG.
     InterPro; IPR003204; Cyt c ox5A.
DR
DR
     Pfam; PF02284; COX5A; 1.
     Oxidoreductase; Heme; Mitochondrion; Inner membrane.
KW
FT
     NON TER
                  11
                         11
SQ
     SEQUENCE
                11 AA; 1274 MW;
                                  910B35C5B1AB11F5 CRC64;
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
                          100.0%; Pred. No. 9.8e+04;
  Best Local Similarity
  Matches
            1; Conservative
                                0; Mismatches
                                                  0; Indels
                                                                  0; Gaps
            4 S 4
Qу
Db
            1 S 1
RESULT 28
CX5A CONAL
ID
     CX5A CONAL
                    STANDARD;
                                   PRT;
                                           11 AA.
     P58848;
AC
DT
     28-FEB-2003 (Rel. 41, Created)
     28-FEB-2003 (Rel. 41, Last sequence update)
DT
DT
     15-MAR-2004 (Rel. 43, Last annotation update)
     Conotoxin au5a.
DE
     Conus aulicus (Court cone).
OS
OC
     Eukaryota; Metazoa; Mollusca; Gastropoda; Orthogastropoda;
OC
    Apogastropoda; Caenogastropoda; Sorbeoconcha; Hypsogastropoda;
OC
     Neogastropoda; Conoidea; Conidae; Conus.
OX
    NCBI TaxID=89437;
RN
     [1]
RP
     SEQUENCE, SYNTHESIS, AND MASS SPECTROMETRY.
RC
     TISSUE=Venom;
RX
    MEDLINE=99452958; PubMed=10521453;
RA
     Walker C.S., Steel D., Jacobsen R.B., Lirazan M.B., Cruz L.J.,
RA
     Hooper D., Shetty R., DelaCruz R.C., Nielsen J.S., Zhou L.M.,
RA
     Bandyopadhyay P., Craig A.G., Olivera B.M.;
RT
     "The T-superfamily of conotoxins.";
RL
     J. Biol. Chem. 274:30664-30671(1999).
     [2]
RN
RP
     ERRATUM.
     Walker C.S., Steel D., Jacobsen R.B., Lirazan M.B., Cruz L.J.,
RA
     Hooper D., Shetty R., DelaCruz R.C., Nielsen J.S., Zhou L.M.,
RA
     Bandyopadhyay P., Craig A.G., Olivera B.M.;
RA
     J. Biol. Chem. 274:36030-36030(1999).
RL
CC
     -!- FUNCTION: Causes dorsal fins drooping in fish. No effect is
CC
         observed when injected into mice.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Expressed by the venom duct.
CC
     -!- MASS SPECTROMETRY: MW=1436.6; METHOD=LSIMS.
CC
     -!- SIMILARITY: Belongs to the conotoxin T-superfamily.
DR
     PIR; A59146; A59146.
```

```
KW
     Toxin.
                   2
                          9
FT
     DISULFID
     DISULFID
                   3
                         10
FT
                11 AA; 1441 MW; 21A36775440059D7 CRC64;
SO
     SEQUENCE
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 9.8e+04;
                                                    0; Indels
  Matches
             1; Conservative
                                0; Mismatches
                                                                  0;
                                                                      Gaps
                                                                              0;
            2 R 2
Qу
              ı
            7 R 7
Db
RESULT 29
CX5B CONAL
     CX5B CONAL
                    STANDARD;
                                   PRT;
                                           11 AA.
AC
     P58849;
DT
     28-FEB-2003 (Rel. 41, Created)
DT
     28-FEB-2003 (Rel. 41, Last sequence update)
     15-MAR-2004 (Rel. 43, Last annotation update)
DT
DE
     Conotoxin au5b.
OS
     Conus aulicus (Court cone).
     Eukaryota; Metazoa; Mollusca; Gastropoda; Orthogastropoda;
OC
     Apogastropoda; Caenogastropoda; Sorbeoconcha; Hypsogastropoda;
OC
OC
     Neogastropoda; Conoidea; Conidae; Conus.
     NCBI TaxID=89437;
OX
RN
     [1]
RP
     SEQUENCE, AND MASS SPECTROMETRY.
RC
    TISSUE=Venom;
    MEDLINE=99452958; PubMed=10521453;
RX
RA
     Walker C.S., Steel D., Jacobsen R.B., Lirazan M.B., Cruz L.J.,
     Hooper D., Shetty R., DelaCruz R.C., Nielsen J.S., Zhou L.M.,
RA
     Bandyopadhyay P., Craig A.G., Olivera B.M.;
RA
RT
     "The T-superfamily of conotoxins.";
     J. Biol. Chem. 274:30664-30671(1999).
RL
RN
     [2]
RP
     ERRATUM.
RA
     Walker C.S., Steel D., Jacobsen R.B., Lirazan M.B., Cruz L.J.,
RA
     Hooper D., Shetty R., DelaCruz R.C., Nielsen J.S., Zhou L.M.,
     Bandyopadhyay P., Craig A.G., Olivera B.M.;
RA
     J. Biol. Chem. 274:36030-36030(1999).
RL
CC
     -!- FUNCTION: Causes dorsal fins drooping in fish. No effect is
CC
         observed when injected into mice (By similarity).
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Expressed by the venom duct.
CC
     -!- MASS SPECTROMETRY: MW=1388.6; METHOD=LSIMS.
CC
     -!- SIMILARITY: Belongs to the conotoxin T-superfamily.
     PIR; B59146; B59146.
DR
KW
    Toxin.
                   2
FT
     DISULFID
                          9
FT
     DISULFID
                   3
                         10
     SEQUENCE
                11 AA; 1393 MW;
                                  21A36775440042D7 CRC64;
SQ
  Query Match
                           9.1%;
                                  Score 1; DB 1; Length 11;
  Best Local Similarity 100.0%; Pred. No. 9.8e+04;
                              0; Mismatches
 Matches
             1; Conservative
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
```

```
2 R 2
Qу
            7 R 7
Db
RESULT 30
CXL1 CONMR
ID
     CXL1 CONMR
                    STANDARD;
                                    PRT;
                                            11 AA.
AC
     P58807;
DT
     28-FEB-2003 (Rel. 41, Created)
DT
     28-FEB-2003 (Rel. 41, Last sequence update)
     28-FEB-2003 (Rel. 41, Last annotation update)
DE
     Lambda-conotoxin CMrVIA.
     Conus marmoreus (Marble cone).
OS
OC
     Eukaryota; Metazoa; Mollusca; Gastropoda; Orthogastropoda;
OC
     Apogastropoda; Caenogastropoda; Sorbeoconcha; Hypsogastropoda;
OC
     Neogastropoda; Conoidea; Conidae; Conus.
     NCBI TaxID=42752;
OX
RN
RP
     SEQUENCE, SYNTHESIS, AND MASS SPECTROMETRY.
RC
     TISSUE=Venom;
RX
    MEDLINE=20564325; PubMed=10988292;
RA
     Balaji R.A., Ohtake A., Sato K., Gopalakrishnakone P., Kini R.M.,
RA
     Seow K.T., Bay B.-H.;
RT
     "Lambda-conotoxins, a new family of conotoxins with unique disulfide
RT
     pattern and protein folding. Isolation and characterization from the
     venom of Conus marmoreus.";
RT
     J. Biol. Chem. 275:39516-39522(2000).
RL
CC
     -!- FUNCTION: Inhibits the neuronal noradrenaline transporter.
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Expressed by the venom duct.
CC
     -!- MASS SPECTROMETRY: MW=1237.93; MW ERR=0.21; METHOD=Electrospray.
CC
CC
     -!- SIMILARITY: Belongs to the chi/lambda-conotoxin family.
KW
    Neurotoxin; Toxin; Hydroxylation.
FT
     DISULFID
                   2
                         11
FT
     DISULFID
                   3
                           8
                         10
FT
     MOD RES
                  10
                                   HYDROXYLATION.
     SEQUENCE
                11 AA; 1226 MW;
SQ
                                   277AAC60B7232B58 CRC64;
  Query Match
                            9.1%;
                                   Score 1; DB 1; Length 11;
                          100.0%; Pred. No. 9.8e+04;
  Best Local Similarity
                Conservative
                                  0; Mismatches
                                                                       Gaps
                                                                               0;
                                                    0;
                                                        Indels
            3 K 3
Qу
            6 K 6
RESULT 31
EFG CLOPA
     EFG CLOPA
                    STANDARD:
                                    PRT:
ID
                                            11 AA.
     P81350;
AC
DT
     15-JUL-1998 (Rel. 36, Created)
     15-JUL-1998 (Rel. 36, Last sequence update)
DT
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
```

Elongation factor G (EF-G) (CP 5) (Fragment).

DE

```
GN
     FUSA.
     Clostridium pasteurianum.
OS
OC
     Bacteria; Firmicutes; Clostridia; Clostridiales; Clostridiaceae;
OC
     Clostridium.
OX
     NCBI TaxID=1501;
RN
     [1]
RP
     SEQUENCE.
RC
     STRAIN=W5;
RX
     MEDLINE=98291870; PubMed=9629918;
RA
     Flengsrud R., Skjeldal L.;
RT
     "Two-dimensional gel electrophoresis separation and N-terminal
RT
     sequence analysis of proteins from Clostridium pasteurianum W5.";
RL
     Electrophoresis 19:802-806(1998).
CC
     -!- FUNCTION: This protein promotes the GTP-dependent translocation of
CC
         the nascent protein chain from the A-site to the P-site of the
CC
         ribosome.
CC
     -!- SUBCELLULAR LOCATION: Cytoplasmic.
     -!- SIMILARITY: Belongs to the GTP-binding elongation factor family.
CC
CC
         EF-G/EF-2 subfamily.
DR
     InterPro; IPR000795; EF GTPbind.
DR
     PROSITE; PS00301; EFACTOR GTP; PARTIAL.
KW
     Elongation factor; Protein biosynthesis; GTP-binding.
FT
     NON TER
                  11
                         11
SO
     SEQUENCE
                11 AA; 1337 MW; 412E71F1D9C33B17 CRC64;
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
                          100.0%; Pred. No. 9.8e+04;
  Best Local Similarity
                                 0; Mismatches
                                                                               0;
             1; Conservative
                                                    0;
                                                       Indels
                                                                  0;
                                                                       Gaps
            3 K 3
Qу
            1 K 1
Db
RESULT 32
FAR6 PENMO
     FAR6 PENMO
                                    PRT;
                                            11 AA.
ID
                    STANDARD;
     P83321;
DT
     28-FEB-2003 (Rel. 41, Created)
     28-FEB-2003 (Rel. 41, Last sequence update)
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
DT
DΕ
     FMRFamide-like neuropeptide FLP6 (DGRTPALRLRF-amide).
     Penaeus monodon (Penoeid shrimp).
OS
     Eukaryota; Metazoa; Arthropoda; Crustacea; Malacostraca;
OC
OC
     Eumalacostraca; Eucarida; Decapoda; Dendrobranchiata; Penaeoidea;
OC
     Penaeidae; Penaeus.
OX
     NCBI TaxID=6687;
RN
     [1]
     SEQUENCE, AND MASS SPECTROMETRY.
RP
RC
     TISSUE=Evestalk;
RX
     MEDLINE=21956277; PubMed=11959015;
RA
     Sithigorngul P., Pupuem J., Krungkasem C., Longyant S.,
     Chaivisuthangkura P., Sithigorngul W., Petsom A.;
RA
RT
     "Seven novel FMRFamide-like neuropeptide sequences from the eyestalk
RT
     of the giant tiger prawn Penaeus monodon.";
     Comp. Biochem. Physiol. 131B: 325-337 (2002).
RL
CC
     -!- SUBCELLULAR LOCATION: Secreted.
```

```
-!- MASS SPECTROMETRY: MW=1301.8; METHOD=MALDI.
CC
CC
     -!- SIMILARITY: Belongs to the FARP (FMRFamide related peptide)
         family.
CC
DR
     GO; GO:0007218; P:neuropeptide signaling pathway; TAS.
KW
    Neuropeptide; Amidation.
FT
    MOD RES
                  11
                         11
                                  AMIDATION.
                11 AA; 1301 MW; 9A19C860072DC771 CRC64;
     SEQUENCE
SQ
 Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 9.8e+04;
                                                                              0;
             1; Conservative
                               0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
 Matches
            6 D 6
Qy
            1 D 1
Db
RESULT 33
FAR9 CALVO
     FAR9 CALVO
                    STANDARD;
                                   PRT;
                                          11 AA.
AC
     P41864;
DT
     01-NOV-1995 (Rel. 32, Created)
     01-NOV-1995 (Rel. 32, Last sequence update)
DT
     01-NOV-1995 (Rel. 32, Last annotation update)
DT
DE
     CalliFMRFamide 9.
    Calliphora vomitoria (Blue blowfly).
OS
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC
     Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha; Oestroidea;
OC
OC
     Calliphoridae; Calliphora.
     NCBI TaxID=27454;
OX
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Thoracic ganglion;
RX
     MEDLINE=92196111; PubMed=1549595;
RA
     Duve H., Johnsen A.H., Sewell J.C., Scott A.G., Orchard I.,
     Rehfeld J.F., Thorpe A.;
RA
     "Isolation, structure, and activity of -Phe-Met-Arg-Phe-NH2
RT
RT
     neuropeptides (designated calliFMRFamides) from the blowfly
RT
     Calliphora vomitoria.";
     Proc. Natl. Acad. Sci. U.S.A. 89:2326-2330(1992).
RL
     -!- SIMILARITY: Belongs to the FARP (FMRFamide related peptide)
CC
CC
         family.
     PIR; I41978; I41978.
DR
KW
    Neuropeptide; Amidation.
FT
     MOD RES
                  11
                        11
                                  AMIDATION.
SQ
     SEQUENCE
                11 AA; 1359 MW; 8160CE46CAA44321 CRC64;
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 9.8e+04;
  Best Local Similarity
             1; Conservative 0; Mismatches
                                                  0; Indels
                                                                 0; Gaps
                                                                              0;
  Matches
            3 K 3
Qу
Db
            5 K 5
```

```
HS70 PINPS
     HS70 PINPS
                    STANDARD;
                                   PRT:
                                            11 AA.
AC
     P81672;
     15-JUL-1999 (Rel. 38, Created)
DT
     15-JUL-1999 (Rel. 38, Last sequence update)
DT
     15-MAR-2004 (Rel. 43, Last annotation update)
DT
DE
     Heat shock 70 kDa protein (Fragment).
OS
     Pinus pinaster (Maritime pine).
OC
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC
     Spermatophyta; Coniferopsida; Coniferales; Pinaceae; Pinus.
OX
     NCBI TaxID=71647;
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Needle;
     MEDLINE=99274088; PubMed=10344291;
RX
     Costa P., Pionneau C., Bauw G., Dubos C., Bahrman N., Kremer A.,
RA
     Frigerio J.-M., Plomion C.;
RA
RT
     "Separation and characterization of needle and xylem maritime pine
RT
     proteins.";
RL
     Electrophoresis 20:1098-1108(1999).
CC
     -!- MISCELLANEOUS: On the 2D-gel the determined pI of this protein
CC
         (spot N164) is: 5.4, its MW is: 73 kDa.
CC
     -!- SIMILARITY: Belongs to the heat shock protein 70 family.
KW
     ATP-binding; Heat shock; Multigene family.
FT
     NON TER
                   1
                          1
     NON TER
FT
                  11
                         11
     SEQUENCE
SQ
                11 AA; 1228 MW;
                                  037C1BE8DAA44DD0 CRC64;
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 9.8e+04;
 Matches
             1; Conservative
                               0; Mismatches
                                                      Indels
                                                                               0;
                                                    0;
                                                                  0; Gaps
           10 I 10
Qу
             3 I 3
Db
RESULT 35
LADD ONCMY
                    STANDARD;
     LADD ONCMY
                                   PRT;
                                            11 AA.
AC
     P81018;
DT
     01-NOV-1997 (Rel. 35, Created)
DT
     01-NOV-1997 (Rel. 35, Last sequence update)
     15-DEC-1998 (Rel. 37, Last annotation update)
DT
DE
     Ladderlectin (Fragment).
OS
     Oncorhynchus mykiss (Rainbow trout) (Salmo gairdneri).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Actinopterygii; Neopterygii; Teleostei; Euteleostei;
OC
     Protacanthopterygii; Salmoniformes; Salmonidae; Oncorhynchus.
OX
    NCBI TaxID=8022;
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Blood;
RX
    MEDLINE=97293418; PubMed=9149391;
RA
     Jensen L.E., Thiel S., Petersen T.E., Jensenuis J.C.;
RT
     "A rainbow trout lectin with multimeric structure.";
RL
     Comp. Biochem. Physiol. 116B:385-390(1997).
```

```
-!- FUNCTION: Lectin that binds sepharose.
CC
    -!- COFACTOR: Calcium is essential for sepharose binding.
CC
    -!- SUBUNIT: Multimeric.
CC
    Lectin; Calcium.
KW
    NON TER
             11
                      11
FT
    SEQUENCE 11 AA; 1163 MW; 0B26227FF6D45404 CRC64;
SQ
                       9.1%; Score 1; DB 1; Length 11;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 9.8e+04;
 Matches 1; Conservative 0; Mismatches 0; Indels 0; Gaps
                                                                  0;
          1 A 1
Qу
           1
          1 A 1
Db
RESULT 36
LPW THETH
   LPW THETH
                 STANDARD; PRT; 11 AA.
AC
    P05624;
    01-NOV-1988 (Rel. 09, Created)
DT
DT
    01-NOV-1988 (Rel. 09, Last sequence update)
DT
    30-MAY-2000 (Rel. 39, Last annotation update)
    Trp operon leader peptide.
DE
    TRPL.
GN
OS
    Thermus thermophilus.
    Bacteria; Deinococcus-Thermus; Deinococci; Thermales; Thermaceae;
OC
OC
    Thermus.
    NCBI TaxID=274;
OX
RN
    [1]
    SEQUENCE FROM N.A.
RP
    STRAIN=HB8 / ATCC 27634;
RC
    MEDLINE=89000781; PubMed=2844259;
RX ·
    Sato S., Nakada Y., Kanaya S., Tanaka T.;
RA
    "Molecular cloning and nucleotide sequence of Thermus thermophilus
RT
    HB8 trpE and trpG.";
RT
    Biochim. Biophys. Acta 950:303-312(1988).
RL
CC
    -!- FUNCTION: THIS PROTEIN IS INVOLVED IN CONTROL OF THE BIOSYNTHESIS
CC
       OF TRYPTOPHAN.
CC
    CC
    This SWISS-PROT entry is copyright. It is produced through a collaboration
CC
    between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC
    the European Bioinformatics Institute. There are no restrictions on its
CC
    use by non-profit institutions as long as its content is in no way
CC
    modified and this statement is not removed. Usage by and for commercial
CC
    entities requires a license agreement (See http://www.isb-sib.ch/announce/
    or send an email to license@isb-sib.ch).
CC
CC
    _____
DR
    EMBL; X07744; CAA30565.1; -.
KW
    Tryptophan biosynthesis; Leader peptide.
SQ
    SEQUENCE 11 AA; 1228 MW; 364B295A772DC5A7 CRC64;
 Query Match
                       9.1%; Score 1; DB 1; Length 11;
 Best Local Similarity 100.0%; Pred. No. 9.8e+04;
 Matches 1; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
```

```
Db 1 M 1
```

```
RESULT 37
LSK1 LEUMA
ID
     LSK1 LEUMA
                    STANDARD;
                                    PRT:
                                            11 AA.
AC
     P04428;
DT
     13-AUG-1987 (Rel. 05, Created)
     13-AUG-1987 (Rel. 05, Last sequence update)
DT
DT
     15-MAR-2004 (Rel. 43, Last annotation update)
     Leucosulfakinin-I (LSK-I).
DΕ
OS
     Leucophaea maderae (Madeira cockroach).
OC
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC
     Neoptera; Orthopteroidea; Dictyoptera; Blattaria; Blaberoidea;
OC
     Blaberidae; Leucophaea.
    NCBI TaxID=6988;
OX
RN
     [1]
RΡ
     SEQUENCE.
RX
    MEDLINE=86315858; PubMed=3749893;
    Nachman R.J., Holman G.M., Haddon W.F., Ling N.;
RA
RT
     "Leucosulfakinin, a sulfated insect neuropeptide with homology to
RT
     gastrin and cholecystokinin.";
     Science 234:71-73(1986).
RL.
     -!- FUNCTION: Change the frequency and amplitude of contractions of
CC
CC
         the hingut. Inhibits muscle contraction of hindgut.
CC
     -!- SIMILARITY: Belongs to the gastrin/cholecystokinin family.
DR
     PIR; A01622; GMROL.
     InterPro; IPR001651; Gastrin.
DR
DR
     PROSITE; PS00259; GASTRIN; 1.
    Hormone; Amidation; Sulfation.
KW
FT
    MOD RES
                   6
                           6
                                   SULFATION.
FT
    MOD RES
                  11
                         11
                                   AMIDATION.
     SEQUENCE
                                   7E4E0680E86B5AAB CRC64;
SQ
                11 AA;
                        1459 MW;
                           9.1%;
  Query Match
                                   Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%;
                                   Pred. No. 9.8e+04;
 Matches
             1;
                                                                               0;
                Conservative
                                  0; Mismatches
                                                    0;
                                                        Indels
                                                                       Gaps
            6 D 6
Qу
            5 D 5
Db
RESULT 38
LSKP PERAM
     LSKP PERAM
                    STANDARD;
                                    PRT;
                                            11 AA.
AC
     P36885;
DT
     01-JUN-1994 (Rel. 29, Created)
     01-JUN-1994 (Rel. 29, Last sequence update)
DT
     01-FEB-1996 (Rel. 33, Last annotation update)
DT
DE
     Perisulfakinin (Pea-SK-I).
OS
     Periplaneta americana (American cockroach).
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC
OC
     Neoptera; Orthopteroidea; Dictyoptera; Blattaria; Blattoidea;
OC
     Blattidae; Periplaneta.
     NCBI TaxID=6978;
OX
```

```
SEQUENCE.
RP
RC
     TISSUE=Corpora cardiaca;
     MEDLINE=90137190; PubMed=2615921;
RX
     Veenstra J.A.;
RA
     "Isolation and structure of two gastrin/CCK-like neuropeptides from
RT
     the American cockroach homologous to the leucosulfakinins.";
RT
     Neuropeptides 14:145-149(1989).
RL
     -!- FUNCTION: Stimulates hindgut contractions.
CC
CC
     -!- SIMILARITY: Belongs to the gastrin/cholecystokinin family.
DR
     PIR; A60656; A60656.
DR
     InterPro; IPR001651; Gastrin.
DR
     PROSITE; PS00259; GASTRIN; 1.
KW
     Hormone; Amidation; Sulfation.
     MOD RES
FT
                   6
                          6
                                   SULFATION.
     MOD RES
FT
                  11
                                   AMIDATION.
                         11
     SEQUENCE
SQ
                       1445 MW; 8B4E0680E86B5AAA CRC64;
                11 AA;
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 9.8e+04;
  Matches
             1; Conservative
                                  0; Mismatches
                                                    0; Indels
                                                                       Gaps
                                                                               0;
            6 D 6
Qу
Db
            4 D 4
RESULT 39
MHBI KLEPN
     MHBI KLEPN
ID
                    STANDARD;
                                    PRT;
                                            11 AA.
AC
     P80580;
     01-OCT-1996 (Rel. 34, Created)
DT
DT
     01-OCT-1996 (Rel. 34, Last sequence update)
     01-NOV-1997 (Rel. 35, Last annotation update)
DT
DE
     Maleylpyruvate isomerase (EC 5.2.1.4) (Fragment).
GN
     MHBI.
     Klebsiella pneumoniae.
OS
OC
     Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
OC
     Enterobacteriaceae; Klebsiella.
OX
     NCBI TaxID=573;
RN
     [1]
RP
     SEQUENCE.
RX
     MEDLINE=96349117; PubMed=8760924;
RA
     Robson N.D., Parrott S., Cooper R.A.;
RT
     "In vitro formation of a catabolic plasmid carrying Klebsiella
RT
     pneumoniae DNA that allows growth of Escherichia coli K-12 on 3-
RT
     hydroxybenzoate.";
RL
     Microbiology 142:2115-2120(1996).
CC
     -!- CATALYTIC ACTIVITY: 3-maleylpyruvate = 3-fumarylpyruvate.
KW
     Isomerase.
FT
     NON TER
                  11
                         11
SQ
     SEQUENCE
                        1387 MW;
                11 AA;
                                  1EE0E2DD49C9D5AB CRC64;
  Query Match
                           9.1%;
                                   Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 9.8e+04;
             1; Conservative
                                  0; Mismatches
                                                    0; Indels
                                                                               0;
                                                                  0; Gaps
```

RN

[1]

```
7 M 7
Qу
            1 M 1
Db
RESULT 40
MLG THETS
    MLG THETS
                    STANDARD;
                                    PRT:
ID
                                            11 AA.
AC
     P41989;
DT
     01-NOV-1995 (Rel. 32, Created)
DT
     01-NOV-1995 (Rel. 32, Last sequence update)
     16-OCT-2001 (Rel. 40, Last annotation update)
DT
    Melanotropin gamma (Gamma-melanocyte stimulating hormone) (Gamma-MSH).
DE
OS
     Theromyzon tessulatum (Leech).
     Eukaryota; Metazoa; Annelida; Clitellata; Hirudinida; Hirudinea;
OC
OC
     Rhynchobdellida; Glossiphoniidae; Theromyzon.
OX
     NCBI TaxID=13286;
RN
     [1]
     SEQUENCE.
RP
RC
     TISSUE=Brain;
    MEDLINE=94298944; PubMed=8026574;
RX
     Salzet M., Wattez C., Bulet P., Malecha J.;
RA
RT
     "Isolation and structural characterization of a novel peptide related
RT
     to gamma-melanocyte stimulating hormone from the brain of the leech
     Theromyzon tessulatum.";
RT
     FEBS Lett. 348:102-106(1994).
RL
CC
     -!- SIMILARITY: Belongs to the POMC family.
     PIR; S45698; S45698.
DR
KW
    Hormone; Amidation.
    MOD RES
                  11
FT
                         11
                                   AMIDATION.
     SEQUENCE
SQ
                11 AA; 1486 MW;
                                  2DB8FACE6409C1E8 CRC64;
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 9.8e+04;
  Best Local Similarity
 Matches
             1; Conservative
                                0; Mismatches
                                                   0;
                                                        Indels
                                                                   0; Gaps
                                                                               0;
            2 R 2
Qу
Db
            7 R 7
RESULT 41
MORN HUMAN
ΙD
     MORN HUMAN
                    STANDARD;
                                    PRT;
                                            11 AA.
AC
     P011\overline{6}3;
DT
     21-JUL-1986 (Rel. 01, Created)
     21-JUL-1986 (Rel. 01, Last sequence update)
DT
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
DE
     Morphogenetic neuropeptide (Head activator) (HA).
OS
     Homo sapiens (Human),
OS
     Rattus norvegicus (Rat),
OS
     Bos taurus (Bovine),
OS
     Anthopleura elegantissima (Sea anemone), and
     Hydra attenuata (Hydra) (Hydra vulgaris).
OS
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
```

OX

NCBI TaxID=9606, 10116, 9913, 6110, 6087;

```
RN
     [1]
     SEQUENCE.
RP
     SPECIES=Human, Rat, and Bovine;
RC
     MEDLINE=82035850; PubMed=7290191;
RX
RA
     Bodenmuller H., Schaller H.C.;
RT
     "Conserved amino acid sequence of a neuropeptide, the head activator,
RT
     from coelenterates to humans.";
     Nature 293:579-580(1981).
RL
RN
     [2]
     SEQUENCE.
RP
RC
     SPECIES=A.elegantissima, and H.attenuata;
     Schaller H.C., Bodenmuller H.;
RA
     "Isolation and amino acid sequence of a morphogenetic peptide from
RΤ
RT
     hydra.";
     Proc. Natl. Acad. Sci. U.S.A. 78:7000-7004(1981).
RL
RN
     [3]
RP
     SYNTHESIS.
    MEDLINE=82050803; PubMed=7297679;
RX
     Birr C., Zachmann B., Bodenmuller H., Schaller H.C.;
RA
RT
     "Synthesis of a new neuropeptide, the head activator from hydra.";
     FEBS Lett. 131:317-321(1981).
RL
RN
     [4]
RP
     FUNCTION.
     MEDLINE=90059923; PubMed=2583101;
RX
     Schaller H.C., Druffel-Augustin S., Dubel S.;
RA
RT
     "Head activator acts as an autocrine growth factor for NH15-CA2 cells
     in the G2/mitosis transition.";
RT
RL
     EMBO J. 8:3311-3318(1989).
     -!- FUNCTION: HA acts as an autocrine growth factor for neural cells
CC
CC
         in the G2/mitosis transition.
CC
     -!- CAUTION: This peptide was first isolated from nerve cells of hydra
CC
         and was called head activator by the authors, because it induced
CC
         head-specific growth and differentiation in this animal. It has
CC
         been found in mammalian intestine and hypothalamus.
DR
     PIR; A01427; YHRT.
     PIR; A93900; YHXAE.
DR
     PIR; B01427; YHHU.
DR
     PIR; B93900; YHJFHY.
DR
DR
     PIR; C01427; YHBO.
DR
     GK; P01163; -.
     Growth factor; Cell cycle; Mitosis; Pyrrolidone carboxylic acid.
KW
FT
     MOD RES
                                  PYRROLIDONE CARBOXYLIC ACID.
                          1
     SEQUENCE
SO
                11 AA; 1142 MW;
                                  37927417C325B878 CRC64;
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 9.8e+04;
             1; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                       Gaps
                                                                               0;
            4 S 4
Qy
Db
            6 S 6
RESULT 42
OAIF SARBU
     OAIF SARBU
                                    PRT;
                                            11 AA.
ID
                    STANDARD;
AC
     P83518;
```

```
10-OCT-2003 (Rel. 42, Created)
DT
     10-OCT-2003 (Rel. 42, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
     Ovary-derived ACE interactive factor (Neb-ODAIF) [Contains: Neb-
DE
DE
     ODAIF(1-9); Neb-ODAIF(1-7)].
OS
     Sarcophaga bullata (Grey flesh fly) (Neobellieria bullata).
OC
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
     Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha; Oestroidea;
OC
OC
     Sarcophagidae; Sarcophaga.
     NCBI TaxID=7385;
OX
RN
     [1]
     SEQUENCE, SYNTHESIS, CHARACTERIZATION, AND MASS SPECTROMETRY.
RP
RC
     TISSUE=Ovary;
     MEDLINE=22272747; PubMed=12383874;
RX
     Vandingenen A., Hens K., Baggerman G., Macours N., Schoofs L.,
RA
     De Loof A., Huybrechts R.;
RA
     "Isolation and characterization of an angiotensin converting enzyme
RT
     substrate from vitellogenic ovaries of Neobellieria bullata.";
RT
     Peptides 23:1853-1863(2002).
RL
     -!- FUNCTION: Substrate for angiotensin converting enzyme (ACE) in
CC
CC
CC
     -!- PTM: ACE hydrolyzes Neb-ODAIF by sequentially cleaving off two C-
CC
         terminal dipeptides.
     -!- MASS SPECTROMETRY: MW=1312.7; METHOD=MALDI; RANGE=1-11.
CC
     -!- SIMILARITY: To the N-terminal part of insect vitellogenins.
CC
FT
     PEPTIDE
                         11
                                  NEB-ODAIF.
                   1
FT
     PEPTIDE
                   1
                          9
                                  NEB-ODAIF(1-9).
                          7
                   1
FT
     PEPTIDE
                                  NEB-ODAIF(1-7).
                11 AA; 1314 MW; 4E114BB566C5A763 CRC64;
SQ
     SEQUENCE
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 9.8e+04;
  Best Local Similarity
            1; Conservative 0; Mismatches 0; Indels
  Matches
                                                                  0; Gaps
                                                                              0;
Qу
            3 K 3
Db
            2 K 2
RESULT 43
PKC1 CARMO
     PKC1 CARMO
                    STANDARD;
                                   PRT;
ID
                                           11 AA.
AC
     P82684;
     16-OCT-2001 (Rel. 40, Created)
DT
     16-OCT-2001 (Rel. 40, Last sequence update)
DT
     16-OCT-2001 (Rel. 40, Last annotation update)
DΤ
DE
     Pyrokinin-1 (Cam-PK-1) (FXPRL-Amide).
OS
     Carausius morosus (Indian stick insect).
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC
     Neoptera; Orthopteroidea; Phasmatodea; Euphasmida; Phasmatoidea;
OC
OC
     Heteronemiidae; Carausius.
OX
     NCBI TaxID=7022;
RN
     [1]
RP
     SEQUENCE, FUNCTION, AND MASS SPECTROMETRY.
RC
     TISSUE=Corpora cardiaca;
RA
     Predel R., Kellner R., Gaede G.;
     "Myotropic neuropeptides from the retrocerebral complex of the stick
RT
```

```
insect, Carausius morosus (Phasmatodea: Lonchodidae).";
RT
     Eur. J. Entomol. 96:275-278(1999).
RL
     -!- FUNCTION: Mediates visceral muscle contractile activity (myotropic
CC
CC
         activity).
CC
     -!- MASS SPECTROMETRY: MW=1235; METHOD=MALDI.
CC
     -!- SIMILARITY: Belongs to the pyrokinin family.
DR
     InterPro; IPR001484; Pyrokinin.
DR
     PROSITE; PS00539; PYROKININ; FALSE NEG.
KW
     Neuropeptide; Amidation; Pyrokinin.
FT
     MOD RES
                  11
                         11
                                  AMIDATION.
     SEQUENCE
                11 AA;
                        1236 MW;
                                  2BFA5225BB46C1A8 CRC64;
SQ
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
                          100.0%; Pred. No. 9.8e+04;
  Best Local Similarity
                                0; Mismatches
                                                   0; Indels
                                                                      Gaps
                                                                              0;
  Matches
             1; Conservative
                                                                  0:
            6 D 6
Qy
Db
            1 D 1
RESULT 44
PVK1 PERAM .
ID
     PVK1 PERAM
                    STANDARD;
                                   PRT:
                                            11 AA.
AC
     P41837;
     01-NOV-1995 (Rel. 32, Created)
DT
     01-NOV-1995 (Rel. 32, Last sequence update)
DT
     16-OCT-2001 (Rel. 40, Last annotation update)
DT
     Periviscerokinin-1 (Pea-PVK-1).
DE
     Periplaneta americana (American cockroach).
OS
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC
     Neoptera; Orthopteroidea; Dictyoptera; Blattaria; Blattoidea;
OC
OC.
     Blattidae; Periplaneta.
OX
     NCBI TaxID=6978;
RN
     [1]
RP
     SEQUENCE, AND SYNTHESIS.
RC
     TISSUE=Abdominal perisympathetic organs;
     MEDLINE=95232021; PubMed=7716075;
RX
     Predel R., Linde D., Rapus J., Vettermann S., Penzlin H.;
RA
RT
     "Periviscerokinin (Pea-PVK): a novel myotropic neuropeptide from the
     perisympathetic organs of the American cockroach.";
RT
     Peptides 16:61-66(1995).
RL
CC
     -!- FUNCTION: MYOACTIVE PEPTIDE; HAS EXCITORY ACTIONS ON THE
         HYPERNEURAL MUSCLE.
CC
KW
     Neuropeptide; Amidation.
FT
     MOD RES
                  11
                         11
                                  AMIDATION.
     SEQUENCE
                11 AA; 1114 MW;
                                  39DB5419D7605728 CRC64;
SQ
                           9.1%;
                                  Score 1; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 9.8e+04;
  Best Local Similarity
             1; Conservative 0; Mismatches
                                                       Indels
                                                                  0; Gaps
                                                                              0;
  Matches
                                                  0;
            1 A 1
Qу
              -
            2 A 2
Dh
```

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RESULT 45
RANC RANPI
     RANC RANPI
ID
                    STANDARD;
                                    PRT;
                                            11 AA.
     P08951;
AC
     01-NOV-1988 (Rel. 09, Created)
DT
DT
     01-NOV-1988 (Rel. 09, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DE
     Ranatensin-C.
OS
     Rana pipiens (Northern leopard frog).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC ·
     Amphibia; Batrachia; Anura; Neobatrachia; Ranoidea; Ranidae; Rana.
OC
OX
     NCBI TaxID=8404;
RN
     [1]
RΡ
     SEQUENCE.
RC
     TISSUE=Skin secretion;
RX
     MEDLINE=84131098; PubMed=6141890;
RA
     Nakajima T.;
     Unpublished results, cited by:
RL
     Erspamer V., Erspamer G.F., Mazzanti G., Endean R.;
RL
RL
     Comp. Biochem. Physiol. 77C:99-108(1984).
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin.
CC
     -!- SIMILARITY: Belongs to the bombesin/neuromedin B/ranatensin
CC
         family.
     InterPro; IPR000874; Bombesin.
DR
DR
     Pfam; PF02044; Bombesin; 1.
DR
     PROSITE; PS00257; BOMBESIN; 1.
     Amphibian defense peptide; Bombesin family; Amidation.
KW
FT
     MOD RES
                  11
                         11
                                  AMIDATION.
     SEQUENCE
                11 AA;
                        1304 MW; D6C9885A61ADC366 CRC64;
SQ
                            9.1%; Score 1; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 9.8e+04;
  Best Local Similarity
             1; Conservative
                                 0; Mismatches
  Matches
                                                   0;
                                                        Indels
                                                                       Gaps
                                                                               0;
            8 T 8
Qу
            2 T 2
Db
RESULT 46
RE41 LITRU
     RE41 LITRU
                    STANDARD;
                                    PRT;
                                            11 AA.
ΙD
     P82074;
AC
     28-FEB-2003 (Rel. 41, Created)
DT
     28-FEB-2003 (Rel. 41, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DE
     Rubellidin 4.1.
OS
     Litoria rubella (Desert tree frog).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Hylidae;
OC
OC
     Pelodryadinae; Litoria.
     NCBI TaxID=104895;
OX
RN
     [1]
RP
     SEQUENCE, AND MASS SPECTROMETRY.
RC
     TISSUE=Skin secretion;
RA
     Steinborner S.T., Wabnitz P.A., Waugh R.J., Bowie J.H., Gao C.,
```

```
Tyler M.J., Wallace J.C.;
RA
RT
     "The structure of new peptides from the Australin red tree frog
     'Litoria rubella'. The skin peptide profile as a probe for the study
RT
RT
     of evolutionary trends of amphibians.";
     Aust. J. Chem. 49:955-963(1996).
RL
     -!- FUNCTION: Shows neither neuropeptide activity nor antibiotic
CC
CC
         activity.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
     -!- TISSUE SPECIFICITY: Expressed by the skin dorsal glands.
CC
     -!- MASS SPECTROMETRY: MW=1039; METHOD=FAB.
CC
     Amphibian defense peptide; Amidation.
KW
                  11
                         11
                                  AMIDATION.
FT
     SEQUENCE
                11 AA; 1040 MW; 84ED5CBC2877205A CRC64;
SQ
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 9.8e+04;
            1; Conservative 0; Mismatches 0; Indels
                                                                  0; Gaps
                                                                              0;
            6 D 6
Qу
              - 1
Db
            4 D 4
RESULT 47
RRPL CHAV
     RRPL CHAV
                    STANDARD;
                                   PRT;
                                           11 AA.
AC
     P13179;
\mathsf{D}\mathbf{T}
     01-JAN-1990 (Rel. 13, Created)
DT
     01-JAN-1990 (Rel. 13, Last sequence update)
     28-FEB-2003 (Rel. 41, Last annotation update)
DT
     RNA polymerase beta subunit (EC 2.7.7.48) (Large structural protein)
DΕ
     (L protein) (Fragment).
DE
GN
     L.
os
     Chandipura virus (strain I653514).
     Viruses; ssRNA negative-strand viruses; Mononegavirales;
OC
     Rhabdoviridae; Vesiculovirus.
OC
OX
     NCBI TaxID=11273;
RN
     [1]
     SEQUENCE FROM N.A.
RP
RX
     MEDLINE=89299473; PubMed=2741347;
     Masters P.S., Bhella R.S., Butcher M., Patel B., Ghosh H.P.,
RA
     Banerjee A.K.;
RA
     "Structure and expression of the glycoprotein gene of Chandipura
RT
     virus.";
RT
     Virology 171:285-290(1989).
RL
     -!- FUNCTION: THIS PROTEIN IS PROBABLY A COMPONENT OF THE ACTIVE
CC
         POLYMERASE. IT MAY FUNCTION IN RNA SYNTHESIS, CAPPING, AS WELL AS
CC
         METHYLATION OF CAPS, AND POLY(A) SYNTHESIS.
CC
     -!- CATALYTIC ACTIVITY: N nucleoside triphosphate = N diphosphate +
CC
CC
         \{RNA\}(N).
     -!- SUBUNIT: THOUGHT TO FORM A TRANSCRIPTION COMPLEX WITH THE
CC
         NUCLEOCAPSID (N) PROTEIN.
CC
     -!- SIMILARITY: WITH THE L PROTEIN OF OTHER RHABDOVIRUSES AND
CC
         PARAMYXOVIRUSES.
CC
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    or send an email to license@isb-sib.ch).
    _____
CC
DR
    EMBL; J04350; AAA42917.1; -.
ΚW
    Transferase; RNA-directed RNA polymerase.
FT
    NON TER
                11
                       11
             11 AA; 1189 MW; 0335D6E3AAB2D764 CRC64;
SQ
    SEQUENCE
                         9.1%; Score 1; DB 1; Length 11;
 Best Local Similarity 100.0%; Pred. No. 9.8e+04;
 Matches
           1; Conservative 0; Mismatches
                                             0; Indels
                                                            0; Gaps
                                                                        0;
           7 M 7
Qy
            Db
           1 M 1
RESULT 48
T2P1 PROVU
ΙD
    T2P1 PROVU
                  STANDARD;
                                PRT;
                                        11 AA.
AC
    P31031;
    01-JUL-1993 (Rel. 26, Created)
DΤ
    01-JUL-1993 (Rel. 26, Last sequence update)
DT
    10-OCT-2003 (Rel. 42, Last annotation update)
DT
    Type II restriction enzyme PvuI (EC 3.1.21.4) (Endonuclease PvuI)
DE
DE
    (R.PvuI) (Fragment).
    PVUIR.
GN
OS
    Proteus vulgaris.
OC
    Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
OC
    Enterobacteriaceae; Proteus.
OX
    NCBI TaxID=585;
RN
    [1]
RP
    SEQUENCE FROM N.A.
RC
    STRAIN=ATCC 13315;
RX
    MEDLINE=93087186; PubMed=1454536;
RA
    Smith M.D., Longo M., Gerard G.F., Chatterjee D.K.;
RT
    "Cloning and characterization of genes for the PvuI restriction and
RT
    modification system.";
    Nucleic Acids Res. 20:5743-5747(1992).
RL
    -!- FUNCTION: RECOGNIZES THE DOUBLE-STRANDED SEQUENCE CGATCG AND
CC
CC
        CLEAVES AFTER T-4.
CC
    -!- CATALYTIC ACTIVITY: Endonucleolytic cleavage of DNA to give
        specific double-stranded fragments with terminal 5'-phosphates.
CC
    ______
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CC
CC
    EMBL; L04163; AAA25660.1; -.
DR
DR
    PIR; S35490; S35490.
```

```
DR
     REBASE; 1541; PvuI.
KW
     Restriction system; Hydrolase; Nuclease; Endonuclease.
FT
                   1
                11 AA;
                                  9F0CDE7955B72B1A CRC64;
     SEOUENCE
                        1300 MW;
SO
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 9.8e+04;
                                                                     Gaps
             1; Conservative
                                                                 0;
                                                                              0;
  Matches
                                0; Mismatches
                                                 0; Indels
           10 I 10
Qу
              -
            1 I 1
Db
RESULT 49
TIN1 HOPTI
     TIN1 HOPTI
                                           11 AA.
                    STANDARD;
                                   PRT;
     P82651;
AC
     16-OCT-2001 (Rel. 40, Created)
DT
     16-OCT-2001 (Rel. 40, Last sequence update)
DT
     15-MAR-2004 (Rel. 43, Last annotation update)
DT
DE
     Tigerinin-1.
     Hoplobatrachus tigerinus (Indian bull frog) (Rana tigerina).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Ranoidea; Ranidae;
OC
OC
     Hoplobatrachus.
OX
     NCBI TaxID=103373;
RN
     [1]
     SEQUENCE, FUNCTION, MASS SPECTROMETRY, AND DISULFIDE BONDS.
RP
     TISSUE=Skin secretion;
RC
RX
     PubMed=11031261;
     Purna Sai K., Jaganadham M.V., Vairamani M., Raju N.P.,
RA
     Devi A.S., Nagaraj R., Sitaram N.;
RA
     "Tigerinins: novel antimicrobial peptides from the Indian frog Rana
RT
RT
     tigerina.";
     J. Biol. Chem. 276:2701-2707(2001).
RL
     -!- FUNCTION: Antibacterial activity against B.subtilis, E.coli,
CC
         S.aureus, M.luteus, P.putida and S.cerevisiae.
CC
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin.
     -!- MASS SPECTROMETRY: MW=1342; METHOD=MALDI.
CC
     Amphibian defense peptide; Antibiotic; Fungicide; Amidation.
KW
FT
     DISULFID
                   2
                         10
FT
     MOD RES
                  11
                         11
                                  AMIDATION.
                11 AA; 1344 MW; A2087DC960476056 CRC64;
     SEQUENCE
SQ
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
                          100.0%; Pred. No. 9.8e+04;
  Best Local Similarity
                              0; Mismatches
                                                                  0; Gaps
                                                                              0;
             1; Conservative
                                                  0; Indels
  Matches
            2 R 2
Qу
            9 R 9
Db
```

RESULT 50 TKC2 CALVO

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TKC2 CALVO
                     STANDARD;
                                    PRT: 11 AA.
ΙD
AC
     P41518;
     01-NOV-1995 (Rel. 32, Created)
DT
     01-NOV-1995 (Rel. 32, Last sequence update)
DT
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DΕ
     Callitachykinin II.
OS
     Calliphora vomitoria (Blue blowfly).
OC
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
     Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha; Oestroidea;
OC
     Calliphoridae; Calliphora.
OC
     NCBI TaxID=27454;
OX
RN
RP
     SEQUENCE, AND SYNTHESIS.
     MEDLINE=95075727; PubMed=7984492;
RX
     Lundquist C.T., Clottens F.L., Holman G.M., Nichols R., Nachman R.J.,
RA
RA
     Naessel D.R.;
     "Callitachykinin I and II, two novel myotropic peptides isolated from
RT
     the blowfly, Calliphora vomitoria, that have resemblances to
RT
RT
     tachykinins.";
RL
     Peptides 15:761-768(1994).
CC
     -!- FUNCTION: Myoactive peptide.
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- SIMILARITY: SOME SIMILARITY TO TACHYKININS.
CC
KW
     Tachykinin; Neuropeptide; Amidation.
FT
     MOD RES
                   11
                          11
                                   AMIDATION.
                         1103 MW;
     SEQUENCE
                11 AA;
                                   15D7E3F9C9CDD444 CRC64;
SQ
                            9.1%; Score 1; DB 1; Length 11;
  Query Match
                           100.0%; Pred. No. 9.8e+04;
  Best Local Similarity
                                                                                 0;
             1; Conservative
                                  0; Mismatches
                                                     0;
                                                         Indels
                                                                    0;
                                                                        Gaps
  Matches
            1 A 1
Qу
Db
            6 A 6
RESULT 51
TKN1 PSEGU
ΙD
     TKN1 PSEGU
                     STANDARD;
                                    PRT;
                                             11 AA.
AC
     P42986;
     01-NOV-1995 (Rel. 32, Created)
DT
     01-NOV-1995 (Rel. 32, Last sequence update)
10-OCT-2003 (Rel. 42, Last annotation update)
DT
DT
     Kassinin-like peptide K-I (PG-KI).
DE
     Pseudophryne guentheri (Guenther's toadlet).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Myobatrachidae;
OC
     Myobatrachinae; Pseudophryne.
OC
     NCBI TaxID=30349;
OX
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Skin secretion;
     MEDLINE=90287814; PubMed=2356157;
RX
     Simmaco M., Severini C., de Biase D., Barra D., Bossa F.,
RA
     Roberts J.D., Melchiorri P., Erspamer V.;
RA
     "Six novel tachykinin- and bombesin-related peptides from the skin of
RT
RT
     the Australian frog Pseudophryne guntheri.";
```

```
Peptides 11:299-304(1990).
RL
CC
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
CC
         muscles.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
DR
     PIR; B60409; B60409.
     InterPro; IPR002040; Tachy Neurokinin.
DR
     InterPro; IPR008215; Tachykinin.
DR
DR
     Pfam; PF02202; Tachykinin; 1.
DR
     SMART; SM00203; TK; 1.
     PROSITE; PS00267; TACHYKININ; 1.
DR
     Amphibian defense peptide; Tachykinin; Neuropeptide; Amidation;
ΚW
KW
     Pyrrolidone carboxylic acid.
FT
     MOD RES
                   1
                                  PYRROLIDONE CARBOXYLIC ACID.
FΤ
     MOD RES
                  11
                         11
                                  AMIDATION.
                                  3DBA7C37C9CB1AB7 CRC64;
     SEQUENCE
                11 AA; 1269 MW;
SO
  Query Match
                           9.1%;
                                  Score 1; DB 1; Length 11;
                          100.0%; Pred. No. 9.8e+04;
  Best Local Similarity
                                0; Mismatches
                                                                  0;
                                                                      Gaps
                                                                               0;
  Matches
             1; Conservative
                                                    0; Indels
            6 D 6
Qу
              1
Db
            5 D 5
RESULT 52
TKN1 UPEIN
     TKN1 UPEIN
                    STANDARD;
                                    PRT;
                                            11 AA.
ID
AC
     P82026;
DT
     30-MAY-2000 (Rel. 39, Created)
     30-MAY-2000 (Rel. 39, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DΕ
     Uperin 1.1.
OS
     Uperoleia inundata (Floodplain toadlet).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Myobatrachidae;
OC
     Myobatrachinae; Uperoleia.
OC
OX
     NCBI TaxID=104953;
RN
     [1]
RP
     SEQUENCE, AND MASS SPECTROMETRY.
     TISSUE=Skin secretion;
RC
     Bradford A.M., Raftery M.J., Bowie J.H., Tyler M.J., Wallace J.C.,
RA
RA
     Adams G.W., Severini C.;
     "Novel uperin peptides from the dorsal glands of the australian
RT
     floodplain toadlet Uperoleia inundata.";
RT
     Aust. J. Chem. 49:475-484(1996).
RL
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
CC
         muscles.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
     -!- TISSUE SPECIFICITY: Skin dorsal glands.
CC
CC
     -!- MASS SPECTROMETRY: MW=1208; METHOD=FAB.
```

```
-!- SIMILARITY: Belongs to the tachykinin family.
     InterPro; IPR002040; Tachy_Neurokinin.
DR
     Pfam; PF02202; Tachykinin; 1.
DR
     PROSITE; PS00267; TACHYKININ; 1.
DR
KW
     Amphibian defense peptide; Tachykinin; Neuropeptide; Amidation;
KW
     Pyrrolidone carboxylic acid.
FT
     MOD RES
                   1
                          1
                                  PYRROLIDONE CARBOXYLIC ACID.
FT
     MOD RES
                  11
                         11
                                  AMIDATION.
SO
     SEQUENCE
                11 AA; 1226 MW; 3293693E59CDD457 CRC64;
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 9.8e+04;
                                                                              0;
             1; Conservative
                               0; Mismatches
                                                    0; Indels
                                                                  0;
                                                                      Gaps
            1 A 1
Qу
Db
            2 A 2
RESULT 53
TKN1 UPERU
                                   PRT;
                                           11 AA.
ID
     TKN1 UPERU
                    STANDARD;
     P08612;
AC
     01-AUG-1988 (Rel. 08, Created)
DT
     01-FEB-1994 (Rel. 28, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DE
     Uperolein.
     Uperoleia rugosa (Wrinkled toadlet).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Myobatrachidae;
OC
     Myobatrachinae; Uperoleia.
     NCBI TaxID=8368;
OX
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Skin secretion;
RX
     MEDLINE=75131227; PubMed=1120493;
     Anastasi A., Erspamer V., Endean R.;
RA
     "Structure of uperolein, a physalaemin-like endecapeptide occurring
RT
     in the skin of Uperoleia rugosa and Uperoleia marmorata.";
RT
     Experientia 31:394-395(1975).
RL
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
CC
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
         muscles.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
     -!- TISSUE SPECIFICITY: Skin.
CC
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
     InterPro; IPR002040; Tachy_Neurokinin.
DR
     InterPro; IPR008215; Tachykinin.
DR
     Pfam; PF02202; Tachykinin; 1.
DR
     SMART; SM00203; TK; 1.
DR
     PROSITE; PS00267; TACHYKININ; 1.
DR
     Amphibian defense peptide; Tachykinin; Neuropeptide; Amidation;
KW
     Pyrrolidone carboxylic acid.
KW
                                  PYRROLIDONE CARBOXYLIC ACID.
FT
     MOD RES
                   1
                          1
     MOD RES
                                  AMIDATION.
FT
                  11
                         11
SQ
     SEQUENCE
                11 AA; 1252 MW; 32867C3E59CDD457 CRC64;
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Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity 100.0%; Pred. No. 9.8e+04;
             1; Conservative
                               0; Mismatches
                                                   0;
                                                       Indels
                                                                  0; Gaps
                                                                              0;
            6 D 6
Qy
            3 D 3
Db
RESULT 54
TKN2 PSEGU
     TKN2 PSEGU
                                   PRT;
                    STANDARD;
                                           11 AA.
     P42987;
AC
DT
     01-NOV-1995 (Rel. 32, Created)
     01-NOV-1995 (Rel. 32, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DE
     Kassinin-like peptide K-II (PG-KII).
     Pseudophryne guentheri (Guenther's toadlet).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Myobatrachidae;
OC
     Myobatrachinae; Pseudophryne.
     NCBI TaxID=30349;
OX
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Skin secretion;
RX
     MEDLINE=90287814; PubMed=2356157;
RA
     Simmaco M., Severini C., de Biase D., Barra D., Bossa F.,
RA
     Roberts J.D., Melchiorri P., Erspamer V.;
     "Six novel tachykinin- and bombesin-related peptides from the skin of
RT
RT
     the Australian frog Pseudophryne guntheri.";
RL
     Peptides 11:299-304(1990).
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
CC
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
         muscles.
     -!- SUBCELLULAR LOCATION: Secreted.
CC
CC
     -!- TISSUE SPECIFICITY: Skin.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
DR
     PIR; C60409; C60409.
     InterPro; IPR002040; Tachy Neurokinin.
DR
     InterPro; IPR008215; Tachykinin.
DR
DR
     Pfam; PF02202; Tachykinin; 1.
     SMART; SM00203; TK; 1.
DR
     PROSITE; PS00267; TACHYKININ; 1.
DR
     Amphibian defense peptide; Tachykinin; Neuropeptide; Amidation;
KW
ΚW
     Pyrrolidone carboxylic acid.
                                  PYRROLIDONE CARBOXYLIC ACID.
FT
     MOD RES
                   1
                          1
     MOD RES
FT
                  11
                         11
                                  AMIDATION.
     SEQUENCE
                11 AA; 1246 MW; 3A247C37C9CB1AB7 CRC64;
SQ
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 9.8e+04;
  Matches
             1;
                Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                  0;
                                                                      Gaps
                                                                              0;
            6 D 6
Qy
```

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RESULT 55
TKN2 UPERU
     TKN2 UPERU
                                    PRT;
                                            11 AA.
                    STANDARD;
     P08616;
AC
     01-AUG-1988 (Rel. 08, Created)
DΤ
     01-FEB-1994 (Rel. 28, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DE
     Rugosauperolein II ([Lys5,Thr6]physalaemin).
     Uperoleia rugosa (Wrinkled toadlet).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Myobatrachidae;
OC
OC
     Myobatrachinae; Uperoleia.
OX
     NCBI TaxID=8368;
RN
     [1]
     SEQUENCE.
RΡ
     TISSUE=Skin secretion;
RC
     MEDLINE=80223080; PubMed=7389029;
RX
     Nakajima T., Yasuhara T., Erspamer V., Erspamer G.F., Negri L.;
RA
     "Physalaemin- and bombesin-like peptides in the skin of the
RT
     Australian leptodactylid frog Uperoleia rugosa.";
RT
     Chem. Pharm. Bull. 28:689-695(1980).
RL
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
CC
         muscles.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
     -!- TISSUE SPECIFICITY: Skin.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
CC
DR
     InterPro; IPR002040; Tachy Neurokinin.
     Pfam; PF02202; Tachykinin; 1.
DR
     PROSITE; PS00267; TACHYKININ; 1.
DR
     Amphibian defense peptide; Tachykinin; Neuropeptide; Amidation;
KW
ΚW
     Pyrrolidone carboxylic acid.
     MOD_RES
                                   PYRROLIDONE CARBOXYLIC ACID.
FT
                   1
                          1
FT
     MOD RES
                  11
                         11
                                   AMIDATION.
                11 AA; 1270 MW;
                                   3293693E59D1A327 CRC64;
SQ
     SEQUENCE
  Query Match
                            9.1%;
                                   Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 9.8e+04;
  Matches
             1; Conservative
                                  0; Mismatches
                                                    0; Indels
                                                                   0:
                                                                       Gaps
                                                                               0;
            1 A 1
Qу
Db
            2 A 2
RESULT 56
TKN3 PSEGU
     TKN3 PSEGU
                    STANDARD;
                                    PRT;
                                            11 AA.
ID
AC
     P42988;
     01-NOV-1995 (Rel. 32, Created)
DT
     01-NOV-1995 (Rel. 32, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
     Kassinin-like peptide K-III (PG-KIII).
DE
```

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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Myobatrachidae;
     Myobatrachinae; Pseudophryne.
OC
     NCBI TaxID=30349;
OX
RN
     [1]
RP
     SEQUENCE.
     TISSUE=Skin secretion;
RC
RX
     MEDLINE=90287814; PubMed=2356157;
     Simmaco M., Severini C., de Biase D., Barra D., Bossa F.,
RA
     Roberts J.D., Melchiorri P., Erspamer V.;
RA
RT
     "Six novel tachykinin- and bombesin-related peptides from the skin of
     the Australian frog Pseudophryne guntheri.";
RT
     Peptides 11:299-304(1990).
RL
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
CC
         muscles.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
     -!- TISSUE SPECIFICITY: Skin.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
CC
     PIR; D60409; D60409.
DR
     InterPro; IPR002040; Tachy Neurokinin.
DR
     InterPro; IPR008215; Tachykinin.
DR
     Pfam; PF02202; Tachykinin; 1.
DR ·
     SMART; SM00203; TK; 1.
DR
     PROSITE; PS00267; TACHYKININ; 1.
DR
     Amphibian defense peptide; Tachykinin; Neuropeptide; Amidation;
KW
     Pyrrolidone carboxylic acid.
KW
                                   PYRROLIDONE CARBOXYLIC ACID.
FT
     MOD RES
                   1
                          1
     MOD RES
                  11
                         11
                                   AMIDATION.
FT
                                   3DBA7C37C9CB1457 CRC64;
     SEQUENCE
                        1268 MW;
SQ
                11 AA;
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 9.8e+04;
  Best Local Similarity
                                  0; Mismatches
                                                                   0; Gaps
                                                                               0;
  Matches
             1; Conservative
                                                    0;
                                                        Indels
            7 M 7
Qу
Db
           11 M 11
RESULT 57
TKN4 PSEGU
     TKN4 PSEGU
                                    PRT;
                                            11 AA.
ID
                    STANDARD;
AC
     P42989;
DT
     01-NOV-1995 (Rel. 32, Created)
     01-NOV-1995 (Rel. 32, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
     Substance P-like peptide I (PG-SPI).
DΕ
     Pseudophryne guentheri (Guenther's toadlet).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Myobatrachidae;
OC
     Myobatrachinae; Pseudophryne.
OC
     NCBI TaxID=30349;
OX
RN
     [1]
     SEQUENCE.
RP
```

Pseudophryne quentheri (Guenther's toadlet).

OS

```
RC
     TISSUE=Skin secretion;
RX
    MEDLINE=90287814; PubMed=2356157;
     Simmaco M., Severini C., de Biase D., Barra D., Bossa F.,
RA
     Roberts J.D., Melchiorri P., Erspamer V.;
RA
     "Six novel tachykinin- and bombesin-related peptides from the skin of
RT
RT
     the Australian frog Pseudophryne guntheri.";
RL
     Peptides 11:299-304(1990).
CC
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
         secretagogues, and contract (directly or indirectly) many smooth
CC
CC
         muscles.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin.
     -!- SIMILARITY: Belongs to the tachykinin family.
CC
     PIR; E60409; E60409.
DR
     InterPro; IPR002040; Tachy Neurokinin.
DR
     InterPro; IPR008215; Tachykinin.
DR
     Pfam; PF02202; Tachykinin; 1.
DR
DR
     SMART; SM00203; TK; 1.
DR
     PROSITE; PS00267; TACHYKININ; 1.
     Amphibian defense peptide; Tachykinin; Neuropeptide; Amidation;
KW
     Pyrrolidone carboxylic acid.
KW
                                  PYRROLIDONE CARBOXYLIC ACID.
FT
     MOD RES
                   1
                          1
     MOD RES
FT
                  11
                         11
                                  AMIDATION.
                                  3A247C2CC9CB1AB7 CRC64;
SO
     SEQUENCE
                11 AA; 1294 MW;
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 9.8e+04;
 Best Local Similarity
                                                                      Gaps
                                                                               0;
                               0; Mismatches
                                                    0; Indels
                                                                  0;
  Matches
            1; Conservative
            6 D 6
Qу
              5 D 5
Db
RESULT 58
TKN5 PSEGU
     TKN5 PSEGU
                    STANDARD;
                                    PRT;
                                            11 AA.
AC
     P42990;
     01-NOV-1995 (Rel. 32, Created)
DT
     01-NOV-1995 (Rel. 32, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DΕ
     Substance P-like peptide II (PG-SPII).
OS
     Pseudophryne guentheri (Guenther's toadlet).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Myobatrachidae;
OC
OC
     Myobatrachinae; Pseudophryne.
OX
     NCBI TaxID=30349;
RN 
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Skin secretion;
     MEDLINE=90287814; PubMed=2356157;
RX
     Simmaco M., Severini C., de Biase D., Barra D., Bossa F.,
RA
     Roberts J.D., Melchiorri P., Erspamer V.;
RA
     "Six novel tachykinin- and bombesin-related peptides from the skin of
RT
     the Australian frog Pseudophryne guntheri.";
RT
RL
     Peptides 11:299-304(1990).
```

```
-!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
        muscles.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin.
CC
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
     PIR; F60409; F60409.
DR
     InterPro; IPR002040; Tachy Neurokinin.
DR
     InterPro; IPR008215; Tachykinin.
DR
DR
     Pfam; PF02202; Tachykinin; 1.
     SMART; SM00203; TK; 1.
DR
    PROSITE; PS00267; TACHYKININ; 1.
DR
    Amphibian defense peptide; Tachykinin; Neuropeptide; Amidation;
KW
     Pyrrolidone carboxylic acid.
KW
                                  PYRROLIDONE CARBOXYLIC ACID.
FT
    MOD RES
                          1
                   1
    MOD RES
                                  AMIDATION.
FT
                  11
                         11
     SEQUENCE
                11 AA; 1293 MW; 3A247C2CC9CB1457 CRC64;
SQ
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 9.8e+04;
                                                                  0; Gaps
                                                                              0;
                               0; Mismatches
                                                   0;
                                                       Indels
  Matches
            1; Conservative
            7 M 7
Qу
              -1
           11 M 11
Db
RESULT 59
TKNA CHICK
     TKNA CHICK
                    STANDARD;
                                   PRT:
                                           11 AA.
     P19850;
AC
DT
     01-FEB-1991 (Rel. 17, Created)
     01-FEB-1991 (Rel. 17, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DΕ
     Substance P.
OS
     Gallus gallus (Chicken).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;
OC
OC
     Gallus.
OX
     NCBI TaxID=9031;
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Intestine;
RX
     MEDLINE=88204263; PubMed=2452461;
RA
     Conlon J.M., Katsoulis S., Schmidt W.E., Thim L.;
RT
     "[Arg3]substance P and neurokinin A from chicken small intestine.";
RL
     Regul. Pept. 20:171-180(1988).
CC
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
         muscles.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
     -!- SIMILARITY: Belongs to the tachykinin family.
CC
DR
     PIR; JN0023; JN0023.
     InterPro; IPR002040; Tachy Neurokinin.
DR
DR
     Pfam; PF02202; Tachykinin; 1.
```

```
Tachykinin; Neuropeptide; Amidation; Neurotransmitter.
KW
FT
    MOD RES
                  11
                         11
                                  AMIDATION.
                11 AA; 1377 MW;
     SEOUENCE
                                  21487FE3C9D6C6C7 CRC64;
SQ
 Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 9.8e+04;
 Matches
             1; Conservative
                               0; Mismatches
                                                 0; Indels
                                                                 0; Gaps
                                                                              0;
            2 R 2
Qy
              -1
            1 R 1
Db
RESULT 60
TKNA GADMO
    TKNA GADMO
                    STANDARD;
                                   PRT;
                                           11 AA.
    P28498;
AC
DT
     01-DEC-1992 (Rel. 24, Created)
DT
     01-DEC-1992 (Rel. 24, Last sequence update)
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DE
     Substance P.
OS
     Gadus morhua (Atlantic cod).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
    Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
OC
     Acanthomorpha; Paracanthopterygii; Gadiformes; Gadidae; Gadus.
OC
ÒХ
    NCBI TaxID=8049;
RN
     [1]
RP
    SEQUENCE.
RC
    TISSUE=Brain;
    MEDLINE=92298992; PubMed=1376687;
RX
RA
     Jensen J., Conlon J.M.;
     "Substance-P-related and neurokinin-A-related peptides from the brain
RT
     of the cod and trout.";
RT
RL
     Eur. J. Biochem. 206:659-664(1992).
CC
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
        muscles.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
DR
     PIR; S23306; S23306.
DR
     InterPro; IPR002040; Tachy_Neurokinin.
     InterPro; IPR008215; Tachykinin.
DR
     Pfam; PF02202; Tachykinin; 1.
DR
DR
    SMART; SM00203; TK; 1.
DR
     PROSITE; PS00267; TACHYKININ; 1.
     Tachykinin; Neuropeptide; Amidation; Neurotransmitter.
KW
                                  AMIDATION (BY SIMILARITY).
FT
    MOD RES
                         11
                  11
                11 AA; 1315 MW; 214860D759D6C6C7 CRC64;
     SEQUENCE
SQ
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 9.8e+04;
 Matches
            1;
                Conservative
                                0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
            3 K 3
Qу
```

PROSITE; PS00267; TACHYKININ; 1.

DR

```
RESULT 61
TKNA HORSE
     TKNA HORSE
                    STANDARD;
                                   PRT;
                                           11 AA.
     P01290;
AC
     21-JUL-1986 (Rel. 01, Created)
DТ
     21-JUL-1986 (Rel. 01, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DE
     Substance P.
     TAC1 OR NKNA OR TAC2 OR NKA.
GN
     Equus caballus (Horse), and
OS
OS
     Cavia porcellus (Guinea pig).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Perissodactyla; Equidae; Equus.
OC
     NCBI TaxID=9796, 10141;
OX
RN
     [1]
     SEQUENCE.
RP
RC
     SPECIES=Horse;
     Studer R.O., Trzeciak A., Lergier W.;
RA
     "Isolation and amino-acid sequence of substance P from horse
RT
RT
     intestine.";
     Helv. Chim. Acta 56:860-866(1973).
RL
RN
     [2]
RP
     SEQUENCE.
     SPECIES=C.porcellus;
RC
RX
     MEDLINE=90044685; PubMed=2478925;
RA
     Murphy R.;
RT
     "Primary amino acid sequence of quinea-pig substance P.";
     Neuropeptides 14:105-110(1989).
RL
CC
    -!- FUNCTION: Tachykinins are active peptides which excite neurons,
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
CC
         muscles.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
     -!- SIMILARITY: Belongs to the tachykinin family.
CC
     PIR; A01558; SPHO.
DR
DR
     PIR; A60654; A60654.
DR
     InterPro; IPR002040; Tachy Neurokinin.
DR
     InterPro; IPR008215; Tachykinin.
DR
     Pfam; PF02202; Tachykinin; 1.
DR
     SMART; SM00203; TK; 1.
DR
     PROSITE; PS00267; TACHYKININ; 1.
KW
     Tachykinin; Neuropeptide; Amidation; Neurotransmitter.
FT
     MOD RES
                  11
                         11
                                  AMIDATION.
     SEQUENCE
SQ
                11 AA; 1349 MW;
                                 3E757FE3C9D6C6C7 CRC64;
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity 100.0%; Pred. No. 9.8e+04;
            1; Conservative 0; Mismatches 0; Indels
                                                                  0; Gaps
                                                                              0;
  Matches
            2 R 2
Qу
Db
            1 R 1
```

```
RESULT 62
TKNA ONCMY
     TKNA ONCMY
                    STANDARD:
                                    PRT:
ID
                                            11 AA.
     P28499;
AC
     01-DEC-1992 (Rel. 24, Created)
DΤ
     01-DEC-1992 (Rel. 24, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DΕ
     Substance P.
OS
     Oncorhynchus mykiss (Rainbow trout) (Salmo gairdneri).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
OC
     Actinopterygii; Neopterygii; Teleostei; Euteleostei;
ОĊ
     Protacanthopterygii; Salmoniformes; Salmonidae; Oncorhynchus.
     NCBI TaxID=8022;
OX
RN
     [1]
     SEQUENCE.
RP
    TISSUE=Brain;
RC
    MEDLINE=92298992; PubMed=1376687;
RX
RA
     Jensen J., Conlon J.M.;
RT
     "Substance-P-related and neurokinin-A-related peptides from the brain
     of the cod and trout.";
RT
     Eur. J. Biochem. 206:659-664(1992).
RL
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagoques, and contract (directly or indirectly) many smooth
CC
         muscles.
     -!- SUBCELLULAR LOCATION: Secreted.
CC
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
DR
     PIR; S23308; S23308.
     InterPro; IPR002040; Tachy Neurokinin.
DR
     InterPro; IPR008215; Tachykinin.
DR
     Pfam; PF02202; Tachykinin; 1.
DR
     SMART; SM00203; TK; 1.
DR
    PROSITE; PS00267; TACHYKININ; 1.
DR
     Tachykinin; Neuropeptide; Amidation; Neurotransmitter.
KW
FT
    MOD RES
                  11
                         11
                                  AMIDATION (BY SIMILARITY).
     SEQUENCE
                                  214860DEC9D6D1F7 CRC64;
SQ
                11 AA;
                        1358 MW;
  Query Match
                           9.1%;
                                  Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 9.8e+04;
  Matches
             1; Conservative
                                  0; Mismatches
                                                    0; Indels
                                                                       Gaps
                                                                               0;
            3 K 3
Qу
              1
Db
            1 K 1
RESULT 63
TKNA RANCA
     TKNA RANCA
                                    PRT;
                                            11 AA.
ΙD
                    STANDARD;
AC
     P22688;
DT
     01-AUG-1991 (Rel. 19, Created)
     01-AUG-1991 (Rel. 19, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DE
     Ranatachykinin A (RTK A).
OS
     Rana catesbeiana (Bull frog).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
     Amphibia; Batrachia; Anura; Neobatrachia; Ranoidea; Ranidae; Rana.
OC
```

```
NCBI TaxID=8400;
OX
RN
     [1]
     SEQUENCE, AND SYNTHESIS.
RP
RC
     TISSUE=Brain, and Intestine;
RX
     MEDLINE=91254337; PubMed=2043143;
     Kozawa H., Hino J., Minamino N., Kangawa K., Matsuo H.;
RA
     "Isolation of four novel tachykinins from frog (Rana catesbeiana)
RT
RT
     brain and intestine.";
RL
     Biochem. Biophys. Res. Commun. 177:588-595(1991).
RN
     [2]
RP
     SEQUENCE.
     TISSUE=Intestine;
RC
     MEDLINE=94023216; PubMed=8210506;
RX
     Kangawa K., Kozawa H., Hino J., Minamino N., Matsuo H.;
RA
     "Four novel tachykinins in frog (Rana catesbeiana) brain and
RT
RT
     intestine.";
     Regul. Pept. 46:81-88(1993).
RL
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC.
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
CC
         muscles.
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
CC
DR
     PIR; A61033; A61033.
DR
     InterPro; IPR002040; Tachy Neurokinin.
DR
     InterPro; IPR008215; Tachykinin.
DR
     Pfam; PF02202; Tachykinin; 1.
DR
     SMART; SM00203; TK; 1.
DR
     PROSITE; PS00267; TACHYKININ; 1.
KW
     Tachykinin; Neuropeptide; Amidation.
                                   AMIDATION.
FT
     MOD RES
                  11
                         11
     SEQUENCE
                        1311 MW;
                                   200D60CC59D40AB7 CRC64;
SQ
                11 AA;
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 9.8e+04;
  Best Local Similarity
                                                                               0;
                               0; Mismatches
                                                    0;
                                                        Indels
                                                                   0;
                                                                       Gaps
  Matches
             1;
                Conservative
            3 K 3
Qу
            1 K 1
Db
RESULT 64
TKNA RANRI
                                            11 AA.
     TKNA RANRI
                    STANDARD;
                                    PRT;
AC
     P29207;
     01-DEC-1992 (Rel. 24, Created)
DT
     01-DEC-1992 (Rel. 24, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
     Ranakinin (Substance-P-related peptide).
DE
     Rana ridibunda (Laughing frog) (Marsh frog).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Ranoidea; Ranidae; Rana.
OC
     NCBI TaxID=8406;
OX
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Brain;
```

```
MEDLINE=92044543; PubMed=1658233;
RX
     O'Harte F., Burcher E., Lovas S., Smith D.D., Vaudry H., Conlon J.M.;
RA
RT
     "Ranakinin: a novel NK1 tachykinin receptor agonist isolated with
     neurokinin B from the brain of the frog Rana ridibunda.";
RT
     J. Neurochem. 57:2086-2091(1991).
RL
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
CC
         evoke behavioral responses, are potent vasodilators and
         secretagogues, and contract (directly or indirectly) many smooth
CC
CC
         muscles.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
     InterPro; IPR002040; Tachy Neurokinin.
DR
DR
     InterPro; IPR008215; Tachykinin.
DR
     Pfam; PF02202; Tachykinin; 1.
     SMART; SM00203; TK; 1.
DR
     PROSITE; PS00267; TACHYKININ; 1.
DR
K₩
     Tachykinin; Neuropeptide; Amidation.
FT
     MOD RES
                  11
                         11
                                  AMIDATION.
     SEQUENCE
                11 AA;
                       1352 MW;
                                  3A2460CC59D40B07 CRC64;
SQ
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 9.8e+04;
                                0; Mismatches
                                                   0; Indels
                                                                      Gaps
                                                                              0;
             1; Conservative
            3 K 3
Qу
              1
            1 K 1
RESULT 65
TKNA SCYCA
     TKNA SCYCA
                                   PRT:
                    STANDARD;
                                           11 AA.
     P41333;
AC
     01-FEB-1995 (Rel. 31, Created)
DT
     01-FEB-1995 (Rel. 31, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DE
     Substance P.
     Scyliorhinus canicula (Spotted dogfish) (Spotted catshark).
OS
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Chondrichthyes;
OC
     Elasmobranchii; Galeomorphii; Galeoidea; Carcharhiniformes;
OC
     Scyliorhinidae; Scyliorhinus.
OX
     NCBI TaxID=7830;
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Brain;
RX
     MEDLINE=93292508; PubMed=7685693;
     Waugh D., Wang Y., Hazon N., Balment R.J., Conlon J.M.;
RA
RT
     "Primary structures and biological activities of substance-P-related
RT
     peptides from the brain of the dogfish, Scyliorhinus canicula.";
     Eur. J. Biochem. 214:469-474(1993).
RL
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
CC
         evoke behavioral responses, are potent vasodilators and
         secretagogues, and contract (directly or indirectly) many smooth
CC
         muscles.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
CC
DR
     PIR; S33300; S33300.
```

```
PROSITE; PS00267; TACHYKININ; 1.
DR
KW
     Tachykinin; Neuropeptide; Amidation; Neurotransmitter.
     MOD RES
FT
                  11
                        11
                                  AMIDATION.
     SEQUENCE 11 AA; 1278 MW; 214860DEC9D6D867 CRC64;
SQ
                           9.1%; Score 1; DB 1; Length 11;
  Ouery Match
  Best Local Similarity 100.0%; Pred. No. 9.8e+04;
                                0; Mismatches
                                                                              0;
  Matches
             1; Conservative
                                                   0; Indels
                                                                  0; Gaps
            3 K 3
Qу
            1 K 1
Db
RESULT 66
TKND RANCA
     TKND RANCA
ID
                    STANDARD;
                                   PRT;
                                           11 AA.
AC
     P22691;
DT
     01-AUG-1991 (Rel. 19, Created)
     01-AUG-1991 (Rel. 19, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
     Ranatachykinin D (RTK D).
DΕ
     Rana catesbeiana (Bull frog).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Ranoidea; Ranidae; Rana.
OC
OX
     NCBI TaxID=8400;
RN
     [1]
     SEQUENCE, AND SYNTHESIS.
RP
RC
     TISSUE=Intestine;
     MEDLINE=91254337; PubMed=2043143;
RX
     Kozawa H., Hino J., Minamino N., Kangawa K., Matsuo H.;
RA
     "Isolation of four novel tachykinins from frog (Rana catesbeiana)
RT
     brain and intestine.";
RT
     Biochem. Biophys. Res. Commun. 177:588-595(1991).
RL
RN
     [2]
RP
     SEQUENCE.
RC
     TISSUE=Intestine;
RX
     MEDLINE=94023216; PubMed=8210506;
     Kangawa K., Kozawa H., Hino J., Minamino N., Matsuo H.;
RA
RT
     "Four novel tachykinins in frog (Rana catesbeiana) brain and
RT
     intestine.";
RL
     Regul. Pept. 46:81-88(1993).
CC
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
         muscles.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
     PIR; D61033; D61033.
DR
     InterPro; IPR002040; Tachy Neurokinin.
DR
     PROSITE; PS00267; TACHYKININ; FALSE NEG.
DR
     Tachykinin; Neuropeptide; Amidation.
KW
FT
     MOD RES
                  11
                         11
                                  AMIDATION.
     SEOUENCE
                11 AA; 1350 MW;
                                  3A34256C59D40B07 CRC64;
SO
  Query Match
                           9.1%;
                                  Score 1; DB 1; Length 11;
```

InterPro; IPR002040; Tachy Neurokinin.

DR

```
Best Local Similarity 100.0%; Pred. No. 9.8e+04;
                                                                              0;
                                                                 0; Gaps
            1; Conservative 0; Mismatches 0;
                                                       Indels
            3 K 3
Qy
              - 1
Dh
            1 K 1
RESULT 67
TKN ELEMO
                    STANDARD;
                                   PRT:
                                           11 AA.
     TKN ELEMO
ID
AC
     P01293;
DT
     21-JUL-1986 (Rel. 01, Created)
     01-FEB-1994 (Rel. 28, Last sequence update)
DΤ
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DE
     Eledoisin.
     Eledone moschata (Musky octopus) (Ozaena moschata), and
OS
     Eledone cirrhosa (Curled octopus) (Ozaena cirrosa).
OS
     Eukaryota; Metazoa; Mollusca; Cephalopoda; Coleoidea; Neocoleoidea;
OC
     Octopodiformes; Octopoda; Incirrata; Octopodidae; Eledone.
OC
OX
     NCBI TaxID=6641, 102876;
RN
     [1]
RP
     SEQUENCE.
     Anastasi A., Erspamer V.;
RA
    "The isolation and amino acid sequence of eledoisin, the active
RT
     endecapeptide of the posterior salivary glands of Eledone.";
RT
     Arch. Biochem. Biophys. 101:56-65(1963).
RL
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
         muscles.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
CC
     PIR; A01561; EOOC.
DR
     PIR; B01561; EOOCC.
DR
     PDB; 1MXQ; 18-FEB-03.
DR
     InterPro; IPR002040; Tachy Neurokinin.
DR
     PROSITE; PS00267; TACHYKININ; 1.
DR
     Tachykinin; Neuropeptide; Amidation; Pyrrolidone carboxylic acid;
KW
KW
     3D-structure.
                                  PYRROLIDONE CARBOXYLIC ACID.
FT
     MOD RES
                          1
                  11
                         11
                                  AMIDATION.
FT
     MOD RES
                                 570D7C2559CDDAA3 CRC64;
     SEQUENCE
                11 AA; 1206 MW;
SQ
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 9.8e+04;
            1; Conservative 0; Mismatches
                                                  0; Indels
                                                                  0; Gaps
                                                                              0;
  Matches
            4 S 4
Qу
              1
            3 S 3
Db
RESULT 68
TKN PHYFU
ID TKN PHYFU
                    STANDARD;
                                   PRT;
                                            11 AA.
```

```
AC
     P08615;
     01-AUG-1988 (Rel. 08, Created)
DT
DT
     01-FEB-1994 (Rel. 28, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DE
     Physalaemin.
OS
     Physalaemus fuscumaculatus (Neotropical frog).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Leptodactylidae;
OC
     Leptodactylinae; Physalaemus.
     NCBI TaxID=8378;
OX
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Skin secretion;
RX
    MEDLINE=66076612; PubMed=5857249;
     Erspamer V., Anastasi A., Bertaccini G., Cei J.M.;
RA
RT
     "Structure and pharmacological actions of physalaemin, the main
RT
     active polypeptide of the skin of Physalaemus fuscumaculatus.";
RL
     Experientia 20:489-490(1964).
CC
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
        muscles.
CC
    -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
     PIR; S07201; S07201.
DR
DR
     InterPro; IPR002040; Tachy Neurokinin.
     Pfam; PF02202; Tachykinin; 1.
DR
DR
    PROSITE; PS00267; TACHYKININ; 1.
    Amphibian defense peptide; Tachykinin; Neuropeptide; Amidation;
KW
     Pyrrolidone carboxylic acid.
KW
FT
    MOD RES
                   1
                                  PYRROLIDONE CARBOXYLIC ACID.
                          1
    MOD RES
FT
                  11
                         11
                                  AMIDATION.
                11 AA; 1283 MW;
SQ
     SEQUENCE
                                  3293693E59C33457 CRC64;
                           9.1%;
  Query Match
                                  Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 9.8e+04;
             1; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                      Gaps
            1 A 1
Qу
            2 A 2
RESULT 69
UF05 MOUSE
     UF05 MOUSE
                    STANDARD;
                                   PRT;
                                            11 AA.
AC
     P38643;
     01-OCT-1994 (Rel. 30, Created)
DT
     01-OCT-1994 (Rel. 30, Last sequence update)
DT
DT
     15-MAR-2004 (Rel. 43, Last annotation update)
DE
    Unknown protein from 2D-page of fibroblasts (P48) (Fragment).
OS
    Mus musculus (Mouse).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
OC
    Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
    NCBI TaxID=10090;
OX
RN
     [1]
```

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RP
     SEQUENCE.
RC
     TISSUE=Fibroblast;
     MEDLINE=95009907; PubMed=7523108;
RX
     Merrick B.A., Patterson R.M., Wichter L.L., He C., Selkirk J.K.;
RA
RT
     "Separation and sequencing of familiar and novel murine proteins
     using preparative two-dimensional gel electrophoresis.";
RT
RL
     Electrophoresis 15:735-745(1994).
     -!- MISCELLANEOUS: On the 2D-gel the determined pI of this unknown
CC
CC
         protein is: 5.5, its MW is: 48 kDa.
FT
     NON TER
                . 11
                         11
     SEQUENCE
                       1328 MW;
SO
                11 AA;
                                 E54835E5CAAABAFA CRC64;
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 9.8e+04;
             1; Conservative
                               0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
            3 K 3
Qу
Db
            1 K 1
RESULT 70
ULAG HUMAN
ID
     ULAG HUMAN
                    STANDARD;
                                   PRT;
                                           11 AA.
АC
     P31933;
DT
     01-JUL-1993 (Rel. 26, Created)
     01-JUL-1993 (Rel. 26, Last sequence update)
DT
DT
     15-MAR-2004 (Rel. 43, Last annotation update)
     Unknown protein from 2D-page of liver tissue (Spot 118) (Fragment).
DE
OS
     Homo sapiens (Human).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OC
OX
     NCBI TaxID=9606;
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Liver;
RX
     MEDLINE=94147969; PubMed=8313870;
RA
     Hughes G.J., Frutiger S., Paquet N., Pasquali C., Sanchez J.-C.,
RA
     Tissot J.-D., Bairoch A., Appel R.D., Hochstrasser D.F.;
RT
     "Human liver protein map: update 1993.";
RL
     Electrophoresis 14:1216-1222(1993).
CC
     -!- MISCELLANEOUS: On the 2D-gel the determined pI of this unknown
CC
         protein is: 5.5, its MW is: 34 kDa.
DR
     SWISS-2DPAGE; P31933; HUMAN.
DR
     Siena-2DPAGE; P31933; -.
FT
     NON TER
                  11
                         11
SQ
     SEQUENCE
                11 AA; 1219 MW;
                                  EDABD37F272DDB0A CRC64;
  Query Match
                           9.18;
                                  Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 9.8e+04;
  Matches
             1; Conservative
                                0; Mismatches
                                                  0;
                                                       Indels
                                                                  0; Gaps
                                                                              0;
Qy
            1 A 1
            6 A 6
Db
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Search completed: April 8, 2004, 15:47:24 Job time : 5.15385 secs